WILD FLOWERS
Every Child Should Know

by

FREDERIC·WILLIAM·STACK

WILD FLOWERS

Thomas Thomas
520 N 2nd
Camden
NJ

To Elnore
From
Mam Mam
April 9 1948

"Meadows trim with daisies pied"

WILD FLOWERS
Every Child Should Know

ARRANGED ACCORDING TO COLOR WITH RELIABLE DESCRIPTIONS OF THE MORE COMMON SPECIES OF THE UNITED STATES AND CANADA

BY

FREDERIC WILLIAM STACK

Formerly Field Collector for Museums of Scientific Section of Vassar Brothers Institute, and of Natural History at Vassar College

Illustrated by
Fifty-nine Photographs Direct from Nature

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FREDERIC EARLE ROCKFELLOW STACK

TO YOU, MY BOY

WHOSE INTEREST IN WILD FLOWERS PROMPTED THE PURPOSE
OF THIS VOLUME AND WHOSE DELIGHTFUL COMPANIONSHIP
MADE THE WORK A PLEASURE

TO YOU "SUNNY JIM"

THIS BOOK IS MOST AFFECTIONATELY DEDICATED

PREFACE

WILD Flower study is a pursuit fraught with pleasure and with:

"Health that mocks the doctor's rules."

It doesnot require a preparatory course nor anyspecial instruction to become acquainted with the more common Wild Flowers and their individual traits. Every dooryard and field, wayside, mountain and valley, from the polar regions to the tropics, and from ocean to ocean, abounds in these free-born gifts of Nature. There can be no reason why every one should not become acquainted with and enjoy them. The descriptions which follow are, therefore, intended to bring those seeking information on this subject into contact with the more common species in the most direct and interesting manner. The book includes many simple accounts of plant and flower connection with history, medicine, and legend, together with bits of folk-lore and poetry. The time of flowering, the range and locality where each flower may be sought, are given, and, above all, the author aims first and last to interest and instruct those who seek ready and reliable information on the subject. Hundreds of notes recorded in the descriptions contained herein were made on the spot where the plants were growing naturally, and many of the descriptions were written

beside the actual flowers in various parts of the country, and in all sorts of weather and conditions. They are here told in much the same spirit as they might be related to an acquaintance afield. The flowers have been arranged in five distinct groups, according to colour, as this is, without doubt, the simplest and quickest method of arriving at a definite means of identification.

The flowers are divided first, according to colour, then, according to natural classification. Since flowers are exceedingly variable in colour, and in no case constant, it is difficult to arrive at their true colour value; and, besides, most persons have their own ideas regarding colours. Purple, for instance, ranges from lightest to darkest blue, but is more or less generally understood to be a reddish blue, and it is largely a matter of qualifying its shade. Therefore, the simple primary colours have been selected as a basis, and the flowers have been arbitrarily divided into Red, Pink, Yellow and Orange, Greenish and White and Blue and Purple groups. The student is thus enabled to turn immediately to the group of any particular flower he may desire, according to its dominating colour, without searching through an indefinite mass of descriptive matter. A small magnifying glass will reveal wonders as remarkable as those of fairyland. Such a glass, together with a few needles and a sharp penknife for dissecting the specimens, makes a satisfactory outfit for general study. A small note-book for records and a tin collecting box are also strongly recommended.

Specimens may be pressed in books or between blotters, and mounted on cards when dry, with thin strips of court-plaster, and neatly labeled with date, and locality. The scientific names and classification in the text follow the method adopted by the International Botanical Congress at Vienna, June, 1905, and now incorporated in the new seventh edition of "Gray's Manual," most extensively used as the class text-book in the public schools, thus appealing strongly to both teacher and student by its uniform system of nomenclature. Two Indexes are provided — one for the Common names and one for the Latin, which have been separated to avoid confusion and to facilitate ready reference. Technical terms have been simplified or disregarded wherever possible, and the few which have been retained are defined in the Glossary at the end of the text. In order to assist in the pronunciation of the Latin names the vowels have been accented. The grave or long (`) accent signifies the long vowels; the acute or short (´), short vowels. Naturally, many references have been made to various works on this comprehensive subject. "Gray's Manual," and Britton and Brown's "Illustrated Flora" have been freely consulted. The colours, descriptions, common names and ranges are usually in strict accordance with these authorities, to which I especially desire to extend full acknowledgment. I am also very grateful for the unlimited and professional advice extended by Herman Merkle, Chief Forester of the New York Zoölogical Park,

Wilhelm Miller, Leonard Barron, and the many other personal friends who have assisted me.

To my dear mother, who has always encouraged me in my Nature studies; to my loving wife, for her help, at home and afield, with notes and specimens; and to my bonny boy, whose many inquiries have suggested this undertaking, I owe my everlasting gratitude and affection.

FREDERIC WILLIAM STACK.

New Rochelle, N. Y. April, 1909.

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PHOTOGRAPHS BY

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Nathan R. Graves, The Author and others

SECTION I

RED FLOWERS

WILD FLOWERS

JACK-IN-THE-PULPIT. INDIAN TURNIP

Arisaèma triphýllum. Arum Family.

HERE is a floral jack-in-the-box that has been a delight to every child east of the Mississippi Valley since Columbus popularized American tours. And its bright red berries and large, solid bulb tickled the palates of our dear old Indians many years previous to this great and most eventful proposition. There is nothing solemn about this curiously constructed flower — indeed, it is very amusing, if not ridiculous. Jack is not a preacher. Far from it — he is a peeper, popping up here and there in shady nooks where he erects his artistic summer house, and is ever on the lookout to surprise us in our woodland rambles during May. The violently acrid bulb is exceeding fiery to the taste, and has been used as a remedy for asthma, whooping-cough and rheumatism.

The Indian Turnip is a perennial herb, and grows from about one to three feet in height. Each plant bears one or two large, spreading, three-parted leaves, which overtop the flower hood. The strongly ribbed, broad, oval leaflets taper at the tip, and are set on long, round, smooth stems, that are sheathed toward the

foot. The insignificant and inconspicuous yellow flowers are clustered around the base of a slender green club or spadix, which is seated within a deep, leaf-like cornucopia whose broad, tapering tip is gracefully curved over the erect, protruding head of the green "Jack." This leafy formation is known as the spathe, and answers to the white floral part of the familiar Calla Lily. It is green, with darker green or purple stripes, and is seated upon the end of a stout stem, which springs from between the sheaths of the leaf stems. In the fall, the short, stiff, club-like clusters of bright scarlet, berry-like fruit are very attractive. Jack is found commonly in rich, moist woods and thickets from Nova Scotia to Florida, and west to Ontario, Minnesota, Kansas, and Louisiana.

SKUNK CABBAGE

Symplocárpus foétidus. Arum Family.

Time and again it has been found convenient for æsthetic purposes to disregard the comely Skunk Cabbage in reckoning on the first or earliest of our spring wild flowers to blossom. But the Hepatica and its host of admirers must content themselves with at best second place, as the first honour is honestly earned by the former flower. It is very frequently found in full bloom, with yellow pollen, in February, and it is not at all uncommon to record its occurrence in January. It is not generally known that the low-twisted, one-sided, hood-like and purple stained spikes, which pierce the muck and ooze, or even water and

ice, in wet swampy places very early in the spring, are really floral huts, and that if one slips his finger in the side opening he is very likely to find out that important business is being transacted therein. If golden grains of pollen adhere to the finger when withdrawn, it is positive proof of the flower's maturity. True enough, they are unattractive and unpleasantly scented; nevertheless, it cannot be denied that they are very interesting and figure prominently in the earliest rambles of the year. It is also interesting to know that its stout, mottled, horn-like hood is identical in capacity with the white cup of the Calla Lily, to which it is related. The acrid root of the Skunk Cabbage has been used as a remedy for asthma, catarrh, rheumatism, nervousness and hysteria. This plant grows with a rank, tropical vigour, and its profuse, bright green foliage becomes a highly decorative feature in our Eastern lowlands during the summer. The strongly ribbed, rather thin and smooth, firm-textured leaves grow in large, cabbage-like crowns, and vary in length from one to three feet. They have an entire margin, and are broadly egg- or heart-shaped, with a blunt tip. They do not unfold until after the flowering period, and are set on short, deeply grooved stems. Numerous tiny, four-parted, greenish-yellow to purplish-brown florets are densely gathered on a short, thick, rounded and fleshy club or spadix, which is hidden within the large, thick, purple lined, shell-like hood. The spadix finally enlarges and becomes somewhat spongy, and encloses numerous bulb-like

berries which turn to a bright scarlet in the fall. Frequently two or three flower-heads spring up together with the lightly rolled leaf, all protected with several dingy, sheathing leaflets. Every part of the plant emits a fœtid odour, and reminds one of the offensive smell attached to the Purple Trillium and Carrion Flower. The flowers may be found from January to April, from Nova Scotia to Ontario and Minnesota, and south to Florida and Iowa.

RED, WOOD, FLAME OR PHILADELPHIA LILY

Lilium philadélphicum. Lily Family.

The beautiful upright, flaring cups of the Wood Lily, appearing like the flaming torches of classical Rome, enlighten our upland meadows, dry woods and thicket borders during June and July. It ranks among our most showy and attractive flowers. The single, smooth and slender stalk is leafy above the middle, and grows from one to three feet tall, from a bulb of narrow-jointed, fleshy scales. The thin, smooth and narrow lance-shaped leaves taper toward either end, and are stemless and finely rough-margined. They occur in whorls of from three to eight at regular intervals along the stalk, or a few of them alternate on it. From one to five large, reddish orange or flame-coloured flowers spring erectly from the top of the stalk on separate stems. The neck of each flower-bell is distinctly opened by the sudden narrowing of the lower part of each of the six separate, partly flared and curved, petal-like parts, into slender, stemlike

bases. Each part broadens decidedly toward the end, and finally tapers to a blunt tip. Within, on the upper parts of the divisions, the colouring becomes more intense, and, at some distance from the tips is spotted with dark purple and tinged with yellow. The six long pink stamens and pistil have brown tips, and add greatly to the attractiveness of the blossom. This magnificent Lily is found from Maine to Ontario, and south to North Carolina and west to Virginia.

LARGE CORAL-ROOT

Corallorrhìza maculàta. Orchid Family.

This late-blooming Coral-root is more pretentious than the following species, and its brownish-purple blossoms are fragrant and more Orchid-like. The stouter flower stalk is stained with purple, and grows from eight to twenty inches high, bearing several tight-fitting scales in place of leaves. From ten to thirty erect flowers are gathered in a terminal spike. The petals are narrow and somewhat spotted, and, together with the sepals, are slightly united at the base. The deeply three-lobed oval lip is wavy-edged, and its colour is white, spotted and lined with purple. The middle lobe is broadest and the apex is curved. The yellowish spur is rudimentary, and the plant bears no leaves. The large, much branched root is strikingly coral-like in shape. This parasite is found blooming in woods from July to September, and ranges from Florida, Missouri, and California northward into the fur countries. Occasionally, pale

flowers may be found, without the usual spotting on the lip, petals or sepals.

EARLY CORAL-ROOT

Corallorrhìza trífida. Orchid Family.

This leafless Orchid is remarkable for its lack of chlorophyll, or green colouring matter, and for its curious mass of pinkish brown coral-like roots which absorb nourishment from other roots and refuse vegetable matter. On this account they are known as parasites or saprophytes. The slender flower stalk grows a foot or less in height, and bears two or three closely sheathing, purplish scales. The minute flowers resemble dried seed cases at first sight. They are a dull, dingy purple, and from three to twelve hang or droop from the stalk in a loose, terminal spike-like arrangement. They are nearly spurless, and the whitish lip, which is shorter than the quarter-inch sepals and petals, is toothed at the base, and slightly notched at the apex. This inconspicuous species is found during May and June, preferably in wet, evergreen woods, from Alaska to California, and eastward to Nova Scotia; thence south to Minnesota, Ohio, New Jersey, and along the mountains to Georgia.

WILD GINGER, ASARABACCA. CANADA SNAKEROOT

Ásarum canadénse. Birthwort Family.

How like the "babes in the wood" are the curious-looking flowers of the Wild Ginger, as they lie closely

snuggled to the bosom of Mother Earth, obscurely sheltered by their own velvety-green leaves! The casual observer would never dream of their presence amid the cool, thrifty, green masses of their heart-shaped foliage that, ruglike, cover partially shaded nooks in rich, open woodland, along moist, stony slopes. The exceedingly odd flowers have a peculiar habit of growing partly buried, frequently face downward, in the accumulation of bleached and decaying litter about them. They are sombre-hued, and harmonize so cleverly with their musty surroundings as to appear tolerably inconspicuous. Even if we should crouch on our knees and part the foliage, it would require a second sharp look to discover the solitary and somewhat bell-shaped blossoms. All parts of the plant emit an aromatic fragrance when bruised, strongly suggesting that of ginger, from which it received its common name. The odour is at once pleasing and refreshing. The roots yield a volatile oil now extensively used in the manufacture of perfumery. The dried roots are sold at the druggists, as Canada Snakeroot, and country people make decoctions from them for relieving stomach ache. Usually, two long-stemmed, dark green leaves rise from a stout, fibrous, creeping rootstock. They are thin-textured, blunt-pointed, and have two very large lobes at their base. They are broadly heart- or kidney-shaped, and their margins are toothless. Their surface is strongly creased with numerous ribs and veinings. The stumpy, short-stemmed flower has no petals, and springs from between the

base of the leaf stems. The slightly angular, bell-shaped calyx is exceedingly thick and fleshy, and is covered with minute hairs. Its upper part is divided into three short-pointed lobes which, at first, are incurved, then become widely spread, and form a triangular outline. The edges are also curved outward. Their base forms a cup around the short, thick, six-parted pistil, which is surrounded with a dozen stamens. It is stained with purple and olive brown, and is found from April to June, from New Brunswick to Manitoba, and south to North Carolina, Missouri, and Kansas.

WILD COLUMBINE

Áquilègia canadénsis. Crowfoot Family.

There is probably nothing else in the world so exhilarating as a breath of pure, woodsy, spring atmosphere on a balmy day during the blithesome month of May, when everything out-of-doors is stretching and preparing once more for the good old summer time. Thus sing the poets, and it is especially true when one is privileged to nestle in admiration among the dried leaves and rocks beside the Wild Columbine, for this exquisite flower possesses such an unusually charming and vigorous air at this time that, altogether, it warms the heart, quickens the pulse, and thrills the beholder with a genuine glow of pleasure and happiness. Unfortunately, however, the Columbines are becoming more exclusive each year, owing to the great temptation one experiences to pluck them, and to the still greater yielding to this temptation by careless persons

who roam the woods in the springtime, not to admire and study Nature, but to gather wild flowers thoughtlessly and without discretion for the mere sake of a bouquet. From the very nature of their surroundings, these plants are not always deeply and strongly rooted and as their stems are firm and wiry, the entire plant is likely to be uprooted with the flower when it is roughly plucked, and then, of course, it is left to perish. The early wild flowers seem to have selected the Columbines for their reception committee, and to have stationed them along the rocky balconies of woodland ridges during their spring festival, to extend a hearty welcome to all strangers who happen to pass within nodding distance of their abode. If this should be true of the Columbines, it is certain that they fulfil their social obligation gracefully and without fear or favour, greeting old friends and acquaintances here and there with cheerful nods and bows, or courtesying with becoming dignity, this way or that, to new callers, as occasion requires. They seem tireless in their delightful efforts to make one feel at home, and they are always found extending the right hand of good-fellowship to all visitors alike. Perhaps this has some bearing on the recent discussion regarding the selection of the Columbine for our national flower, for we know that Uncle Sam has always welcomed the immigrants from every clime with the same impartial hospitality and goodwill. Popularly the common name, Columbine, is not far removed from Columbia, the Goddess of Liberty and "the gem of the ocean," when standing

for freedom and justice. Columbine is derived from the Latin, *columba* — a dove. Dr. Prior likens the resemblance of its spurs to the heads of pigeons in a ring around a dish, which was a favourite device of ancient artists. The national flower sympathizers, however, apply the dove significance to our olive branch of peace, with the long spurs imitating the horn of plenty and the liberty cap. There is some uncertainty regarding the meaning of the scientific name. One account states that it is from *aquilegus*, or water drawing, while another says that it is *aquila*, an eagle, and that the five long pointed spurs of the flower resemble the talons of this bird. And here again is seen the application of the emblem of our glorious country in a national flower. Stretching the imagination still further, the long red spurs are said to resemble the red stripes of "Old Glory," and that our national colours are represented in red, white and blue flowered species occuring in different parts of the country. It is the state flower of Colorado. It will be recalled that Columbine was also the name of Harlequin's sweetheart in pantomime. The dangling buds are strongly suggestive of old-fashioned drop earrings. On account of the nectar contained in the spurs, the flowers are especially attractive to humming birds, and they are often found hovering above them.

The Wild Columbine loves to frequent the sunny, rocky slopes and ledges in open woods where the soil is sparse and well drained. It often prospers with barely sufficient earth to cover its roots, and causes

one to wonder how it manages to keep from perishing altogether during the extended dry spells of summer and fall. The flowers are scarlet, with yellow linings. They are conspicuously large and showy, and hang, nodding upside down, from fine threadlike stems. They vary greatly, measuring from one to two inches long, and are rather bulky. The five petals are narrow and cone-shaped, and taper sharply to a thickened, rounded point, forming the upright and nearly straight spurs. They are united below by five curved and flaring sepals, which alternate with the tubes, and when viewed from beneath, give the face of the flower a distinct star-shape. The numerous, yellow-tipped stamens and fine slender pistils project, tassel-like, below the pure yellow corolla. As the seed pod ripens, it assumes an upright position on stem. The lower leaves are compound and divided two or three times. Each leaflet has three or more lobes with irregular, rounded notches. Their basal leaves are borne on long, slender stems which rise direct from the roots, and in the spring they form thick, rounded tufts. The upper leaflets are variously shaped and notched, generally rounded, and unite with the stalk at the branching joints. They are thin in texture; light green above, and whitish underneath. The plant grows from one to two feet in height. The long, slender, branching stalk is generally smooth and slightly angular. The colour is green, usually deeply stained with purple. The Wild Columbine is found from Nova Scotia to the Northwest Territory and

south to Florida and Texas from April to July. During my early school days, when

> "Read-in' and 'rit-in' and 'rith-me-tic
> Taught to the tune of a hick-ry stick."

was a serious reality, most every boy and girl knew the Columbine better as the "Honeysuckle," and acquired the habit of biting into the ends of the spurs and sucking out the sweet nectar. The Columbine was first introduced into England to decorate the gardens of Hampton Court during the reign of Charles I., having been sent from the Virginia Colony by a young botanist to Tradescant, gardener and herbalist to the King.

The Blue, or Small-flowered Columbine, *A. brevistyla*, is a much smaller species, bluish or sometimes creamy white in colour, with shorter, incurving spurs. The stamens and pistils rarely protrude, and the flower is more compact. It is found throughout the Northwest Territory to South Dakota.

PITCHER-PLANT. HUNTSMAN'S CUP. INDIAN CUP

Sarracènia purpùrea. Pitcher-plant Family.

In many respects the Pitcher-plant is one of the most interesting and curiosity-exciting of our wild flowers. Perhaps you have heard that some plants "eat" insects, and here you are face to face with one of them. First of all, let us substitute the word absorb for the word eat, and we will better understand our subject, which neither chews nor swallows. Far-

mers and gardeners, we know, replenish the soil with fertilizer containing a large portion of animal matter, such as ground bone and fish, which supplies nitrogen, a necessary element for leaf and stalk formation, and which is absorbed through the activity of plant roots. The leaves of the Pitcher-plant have developed some of the power of the roots by absorbing the nitrogeneous matter from decomposing insects, which they ingeniously attract and capture for this purpose. Broadly speaking, that is all there is to it, and the construction of the leaves, and their method of entrapping the insects is more interesting to learn. The leaves are elongate and tubular, tapering from the root and bulging widely toward the centre, forming a sort of pitcher-shaped growth, with the blunt, open end flared to one side into a short, pointed, and flapped hood. They curve gracefully outward and upward, and the inner or concaved side, which faces the flower stalk, has a very broad wing or keel. They are yellowish green in colour, conspicuously lined and veined with purple, and grow from four to twelve inches long. The texture is stout and leathery, and the outer and inner surfaces are smooth. The pitchers are generally half-filled with water, and the inner surface of the hood is thickly covered with fine, hairy bristles which point downward toward the opening. Just inside the aperture is secreted a sweet, sticky substance, which is supposed to attract insects to it. Once inside the pitcher, the insect becomes a captive, and in trying to escape, it encounters the labyrinth of reflexed

hairs, falls exhausted into the water, and is finally drowned. There is the trap, and most any time during the summer insects may be observed floating on the surface of the water within the pitchers. These pitchers radiate in the form of a circle about the central flower stalk and spring direct from the roots.

The peculiar construction of these cornucopia-shaped leaves actually demonstrate the fabulous "horn of plenty" which they faithfully imitate, by yielding an abundance of insect food and water which some of the birds, and probably also harmless snakes and frogs take advantage of. The large, solitary flower nods coquettishly from a long, stout, smooth, light green stalk rising from one to two feet high. Its five long, ovate, purple-red petals are narrowed in the centre like a fiddle, and their rounded ends are folded in over the top of the singular five-rayed, yellowish style, which is astonishingly like an umbrella, spreading itself over the large seed case, with its five ribs or rays terminating in hooked stigmas. Numerous stamens surround the pistil. The calyx has five spreading sepals which are thick and tough. They are purplish red, lined with light green, and are often stained with darker purple. They are supported by three or four bracts. In the fall, after the seed case has disappeared, the long, faded flower stalks stand out conspicuously, and display their withered sepals. On the 28th of September, 1851, Thoreau wrote in his journal: "Though the moss is comparatively dry, I cannot walk without upsetting the numerous pitchers, which are now full of water,

Matured flowers photographed in February

Root cluster and section of flower

SKUNK CABBAGE. Symplocarpus foetidus

RED LILY. **WOOD LILY.** Lilium philadelphicum

and so wetting my feet. I once sat accidentally down on such a bed of pitcher plants, and I found an uncommonly wet seat where I expected a dry one." The plant exhibits many variations of colour, from deep purple to pink, and from dark green to greenish yellow; and, as Alice Lounsberry says: "from a distance they appear like the mystic blending of colours in a Persian rug." The Huntsman's Cup is said to have been so named because hunters used them to drink from, but it seems more likely that it applies to its resemblance to the old-fashioned powder horn of Davy Crockett's time. The Pitcher-plant is found in peat-bogs and in wet, springy, mossy places, often along railroad tracks, during May and June. The pitchers are often found during the late fall and winter, with the water in them, frozen solid. They range from Labrador to the Canadian Rockies, and south to Minnesota, Kentucky, and Florida.

GROUNDNUT

Apios tuberosa. Pea Family.

All wise, happy-go-lucky country youngsters know where and when to root out the edible pear-shaped tubers of this beautiful climbing vine, which is familiarly known to them as the Wild Bean. During the early Colonial days, this tuberous root is said to have been used as a substitute for bread. The slender, twining stem has a milky juice, and grows several feet in length. From five to seven broad, toothless, lance-shaped leaflets, with their acute apex and rounding

base, make up the stemmed leaf. The numerous rich, brownish purple, butterfly-shaped flowers are sweetly scented, and are densely clustered in a rounding or lengthened head, terminating a short stem from the angle of the alternating leaves. The Groundnut loves the thickets in low, moist ground from New Brunswick to Florida, and west to Minnesota, Kansas, and Louisiana; and blossoms from July to September.

PINESAP. FALSE BEECH-DROPS. BIRD'S NEST

Monótropa Hypópitys. Heath Family.

This slightly fragrant species resembles somewhat the Indian Pipe, to which it is closely related, and it is found in dry or rich woods from June to October. The thick, fleshy and slender flower stalk is either smooth or downy, and several of them spring in a cluster from a dense mass of fleshy, fibrous and parasitic roots. They grow from four to twelve inches high. The plant is leafless, and the stalk is covered with thin, small, tan-coloured, scaly bracts, which become more dense toward the base. The short-stemmed, oblong, bell-shaped flowers vary in colour from white and yellowish to pink, as do also the stalks. They are from three to five parted, with usually an equal number of fleshy sepals. Several flowers are arranged in a one-sided, slightly drooping terminal cluster which becomes erect after the flowers mature. This species grows from Florida and Arizona far in to Canada, and seems to prefer the shade of beach, oak, and fir trees from

the roots of which this uncanny plant absorbs its nourishment.

RED, OR SCARLET PIMPERNEL. POOR MAN'S OR SHEPHERD'S WEATHER-GLASS. RED CHICKWEED. SHEPHERD'S CLOCK. BURNET ROSE

Anagállis arvénsis. Primrose Family.

The neat little terra-cotta or brick-coloured flowers of this common, low-spreading plant have a popular reputation for forecasting rain by closing their petals in advance. The Pimpernel is found in sandy soil in waste places, from May to August, where it grows annually from four to twelve inches in length. The ancients used this plant as an antidote for poison, and it has been recommended as a local remedy for sores. The twisted, square stalk is smooth and shiny, and lies upon the ground. The small, oval leaves are usually arranged in alternate pairs along the stalk. They are rather loose-textured, have an entire margin, and are somewhat clasping. The under side is speckled with numerous fine, black dots. The pretty five-parted, wheel-shaped flower varies greatly in colour, from flesh to scarlet. The divisions are finely toothed at the apex, and the five purple, hairy stamens are tipped with yellow. The green calyx has five tiny grooved parts. The flowers are set singly in slender stems which spring from the axils of the leaves. They are really very sensitive to the light, and only open in the bright sun, closing quickly whenever it is obscured. *Anagallis* is Greek, meaning delightful. The plant

spreads in dense patches, and is found from Newfoundland to Florida, Texas, and Minnesota, and on the Pacific Coast. It is naturalized from Europe.

OSWEGO TEA. AMERICAN BEE BALM. MOUNTAIN MINT. FRAGRANT BALM. INDIAN'S PLUME

Monárda dídyma. Mint Family.

Next to the magnificent Cardinal Flower, the Bee Balm possesses the most intense red colouring of any of our native wild flowers. It does not flaunt its large, showy, tousled head in the bright sunshine, but elects to illuminate the cool banks of shady woodland streams and secluded nooks in moist thickets, where its beauty is reserved to surprise those who happen to snoop in such retreats. Although strikingly handsome and beautiful, it is a rather coarse perennial herb, growing two or three feet in height. The stout, rough-haired stalk is sharply four-angled or square. The thin, aromatic, sharply toothed, dark green leaves are oval, or oblong lance-shaped, with a rounded or narrowed base and a long, sharp, tapering tip. They are set on hairy stems in opposite pairs and are plainly veined. The gaping, wide-mouthed, deep scarlet, tubular flowers blossom in succeeding circles, around a large, round terminal, solitary, dark red head, into which they are gathered, and which is surrounded with a circle of bright reddish, drooping, leafy bracts. The conspicuous, funnel-formed corolla is two-lipped. The erect, slender upper lip is arched and sharp-pointed. The larger, spreading lower lip

is three-lobed, with the centre one longer than the rest, and often notched at the apex. Two long, anther-bearing stamens and the pistil extend beyond the arch, and are coloured like the corolla. The smooth, incurved green calyx is slightly hairy at the throat. The Indians and early settlers of this country are said to have used this plant as a substitute for tea. An antiseptic substance useful for dressing wounds has been extracted from this species. Oswego Tea blossoms from July to September, and is found in hilly country from Georgia northward to Canada, and westward to Michigan.

SCARLET PAINTED-CUP. INDIAN PAINT BRUSH

Castillèja coccínea. Figwort Family.

A singular species known as a parasite, because its roots absorb nourishment from those of other plants upon which they fasten themselves. It is an annual or biennial plant growing a foot or two high in scattered patches in meadows, prairies, and moist thickets. The reddish, hairy, angular, and rather slender, hollow stem occasionally bears erect branches, and rises from a tuft of uncut, oblong leaves. The alternating stem leaves are usually deeply cut into three segments or lobes, and are stemless and parallel-veined. Their colour is light green, and the surface is slightly hairy. The upper leaves, as well as those which are gathered about the flowers, have their ends coloured with bright scarlet, as if they had been dipped in paint.

This feature is unusually showy and attractive. The irregular greenish yellow corolla of the tubular flower has a long, narrow arched upper lip, and a short three-lobed lower lip, and is set in a longer, flattened, tubular, two-lobed and usually green or sometimes scarlet calyx. The flowers are hidden within their conspicuous, three-parted, bright red or scarlet bracts. They have four unequal stamens, and a long pistil set within the long upper lip of the flowers, which are closely grouped in a terminal leafy cluster. The Painted-cup is found from May to July, in low, sandy grounds, from Canada to Virginia, Tennessee, Kansas and Texas. Rarely the bracts and calyxes are yellow. This species was dedicated to a Spanish botanist named Castillejo.

WOOD BETONY. LOUSEWORT. BEEF-STEAK PLANT. HIGH HEAL-ALL

Pedicularis canadénsis. Figwort Family.

Looking directly downward upon the tousled, whirligigged, floral spike of the Wood Betony, one is immediately impressed with its rip-saw symmetry. And, if it is plucked and twirled 'twixt the forefinger and thumb, the illusion becomes quite real and amusing. As we recall frequent references to the Betony of ancient history, we are apt to connect it with our native species, but it is the European plant, *Betonica officinalis*, that was frequently extolled for its many physical and medicinal charms and virtues. Our own curious Wood Betony has one unhappy con-

nection in folk-lore, and that is its scientific name. *Pedicularis* is Latin for louse, and was applied to this species by farmers who, for many years, seemed thoroughly convinced that the Lousewort, as they disparagingly named it, was responsible for breeding a small insect that developed a skin disease among their sheep, which they concluded had surely fed upon its foliage. Several flowering stalks spring from the centre of a tuft of circular clustered leaves. They are stout, hairy, and sparingly leafy, and rise from six to eighteen inches. The peculiar flowers are curiously arranged in a thick, leafy, terminal spike, and they develop spirally toward the green top. The corolla is two-lipped, with the upper one hooked or arched, and flattened like the bow of an Indian canoe, while the lower lip is much shorter, and has three lobes, the outer ones of which are flared. The colour varies from a light yellow to purplish red. The upper lip has two tiny, hair-like teeth at the apex, between which extends a fine pistil. Four stamens huddle beneath the hood of the upper lip. Sometimes the entire flower is yellow, and again the lower lip is yellow and the upper one shades into a deep purple. This peculiarity gives it the name of Beefsteak Plant. The tubular calyx is deeply notched on the under side and tapers to a point on top with two or three small scallops. The dark green fern-like leaves are oblong or lance-shaped, and graduate into slender stems. Their margins are deeply cut into small lobes, each of which is again notched and scalloped or toothed,

and is partly curled. The surface is shiny, and the midrib is strong and conspicuous. Both leaves and stem are often stained with red. After the flowering season the spike extends several inches, and the fruit ripens in the stiff, russet seed cases. Wood Betony is found in sprawling clusters from April to June, in shaded woods and thickets, where the undergrowth is sparse and low. It ranges from Nova Scotia and Manitoba to Florida, Kansas, and Colorado, into Mexico.

BEECH-DROPS. CANCER-ROOT

Epifàgus virginiàna. Broom-rape Family.

If you are not acquainted with these curious, leafless parasites, you will very likely walk over many of them without suspecting they are really anything but small, dead twigs. They are invariably found in beech woods, where they attach their roots to those of the beech tree, and so flourish at its expense. They grow from six to twenty inches or more in height, from a thick, scaly base. The roots are brittle and fibrous. The slender, smooth, branching stalk is stiff and tough, and is purplish, brownish or yellowish in colour. They have no leaves, but a few brownish bracts are scattered along the stalk. The flowers are of two kinds. The upper, or sterile ones are tubular, with notches at their opening. They are curved to one side, and contain four stamens and a pistil. The curving tip of the latter projects beyond the tube. These small flowers are striped with purple and white, and are

scattered along the ascending branches. They emit a very unpleasant odour. The lower flowers are seed-bearing and, bud-like, they never open. Cancer-root is found from August to October, from New Brunswick to Florida, and west to Ontario, Michigan, Missouri, and Louisiana.

CARDINAL FLOWER. RED LOBELIA

Lobèlia cardinàlis. Lobelia Family.

The Cardinal Flower is one of the most striking and attractive of our showy flowers. It possesses the most gorgeous, glowing red colouring imaginable, and because of its unsurpassing vividness and brilliancy, its beauty is its undoing. It is a target for every ruthless, clasping hand that can reach it, and for this reason it is rapidly becoming exterminated. In intensity of colouring it is the Scarlet Tanager of the wild flowers. The usually single, rather large, slightly angular, smoothish stalk is leafy and hollow, and grows from two to four and a half feet high, from perennial off-shoots. The thin, smooth, or slightly hairy leaves are oblong to lance-shaped. They are irregularly toothed, and the upper ones clasp the stalk. The colour is dark green. The numerous, deep cardinal flowers are gathered in a loose and often one-sided terminal spike. The tube-like corolla, which is an inch long, is split down the upper side, and has five narrow, pointed, flaring, velvety lobes. These lobes are bent at right angles, the three central ones set together, and partly separated from the other two;

which stand somewhat erect or recurved, and at right angles with the central one, and opposite each other. The five stamens are united in a tube around the style, and stand out, far beyond the throat of the flower, with a prominent, curving tip. The green calyx has five long, slender parts. Occasionally the flowers are pinkish or white. The Cardinal Flower is found in very moist situations, commonly on the banks of streams and ditches from July to September, from Florida, Texas, and Kansas, well into Canada.

SECTION II

PINK FLOWERS

MOCCASIN FLOWER. PINK, OR STEMLESS LADY'S SLIPPER

Cypripèdium acaúle. Orchid Family.

CYPRIPEDIUM is the Greek name for Venus's 'slipper, and it has been given to this remarkable family, which forms the most showy and loveliest group of our native Orchids. How cleverly they represent Nature's floral tribute to the memory of Hiawatha's clan — the American Indian! They are easily identified by the large, inflated, pouch-shaped lip, the colour of which also indicates the species. The exquisite Moccasin Flower is the largest flowered of them all. It grows from six to twelve inches high, in deep, sandy, or rocky woods during May and June. It is the state flower of Minnesota. Two large, thick, pointed oval, slightly hairy and many ribbed leaves, clasping at the base, spring from a tufted, thick-fibred root. A long, slender flower stem rises from between the leaves and bears a small, green leaflet near its curved top. The flower, with its lip curiously developed into a large, hollow pouch, hangs from the top of the stem like a shepherd's crook. This pouch, which suggests somewhat the shape of a peanut, is slit at the top and its edges are folded inward. Its prevailing colour is pink, or occasionally white, with a fine network of delicate purple veinings. The upper portion of its interior surface is covered with long white hairs.

The spreading, lance-shaped sepals are greenish purple. The upper one is single, and the two lower ones are united. The three spreading and curving petals are coloured like the sepals, but are narrower and longer. The open end of the pouch is nearly closed with a singular broad, scoop-shaped and sterile anther, which shields the fertile anthers and stigma beneath. This handsome, solitary flower possesses a gorgeous tropical air, and although it is the more common and familiar of its kind, it is becoming more difficult to find each year owing to ruthless gathering. It is found from Newfoundland to Manitoba, and south through Minnesota to Tennessee and North Carolina.

SHOWY ORCHIS

Órchis spectábilis. Orchid Family.

Apparently the Orchids have established themselves in a somewhat exclusive and aristocratic circle requiring an especial dispensation to become intimately acquainted with them. This popular notion, however, is more of an illusion than a reality, for barring occasional remote, swampy retreats, they are really quite as inviting and hospitable as any of the less dignified flora. It is true that they are a prodigal family, and, as a rule, their very nature is retiring and seclusive. Consequently they are less frequently discovered, but if one knows where to search for the various species, and about what they should look like, he has a better chance of finding them. The flowers are always six-parted, usually consisting of three simi-

lar sepals, or coloured petal-like parts; two lateral, or ear-like petals; and directly below these, a curious third petal, which is generally conspicuously coloured, and called the lip. The lip is always peculiarly formed, and should be carefully noted. Sometimes it is shaped like an inflated pouch, or a cornucopia, or a spur; again it is broad, or long and narrow, and its edge is finely fringed or bearded; or it may be flat or curved, twice or thrice cleft, grooved, ridged, short or long, extended or depressed, and so on. The leaves are all sheathing, and have an entire margin. The Showy Orchis is a beautiful, charming and one of the earliest blooming species. It inhabits deep, rich, moist woods, especially under hemlock trees, from April to June, when it grows from four inches to a foot in height. The single, thick, fleshy and five-angled stem springs from between a pair of large, thick, shining and clammy oblong leaves which are broadest toward the bluntly tapered tips and narrowed into a groove at the foot. From three to six fragrant, inch-long flowers are clustered on the stalk, each with a clasping leaflet and forming a short, loose, terminal spike. The small, club-shaped sepals and petals look much alike, and are curved together, forming a violet, purple and white, or pink-tinted, pointed hood, beneath which the large, thick, spreading, white lip is prolonged into a blunt, flattened spur. The flower-stem is noticeably twisted and the roots are fleshy fibred. This species is our only *true* native Orchid, and is found from New Brunswick to Ontario

and North Dakota; and south to Georgia, Kentucky and Nebraska. It is not common.

ROSE POGONIA. SNAKE-MOUTH

Pogònia ophioglossoìdes. Orchid Family.

This, one of the prettiest of our more delicate little Orchids, is often found in company with the beautiful, deeper-hued Calopogon or Grass-pink, which blossoms at the same time in bogs, wet meadows, and swamps. The smooth, slender, grass-like stalk, springing from a fibrous root, grows from eight to fifteen inches high, and bears from one to three lance-shaped leaves. Usually there are but two erect leaves, one about half-way up the stalk, and a much smaller and strongly ribbed one at the top close to the blossom. Sometimes a solitary, long-stemmed leaf rises directly from the root. The fragrant, pale, rose-pink flowers are rather large and slightly nodding. They are borne solitary, or occasionally in pairs, at the top of the stalk. The spreading, oval sepals and narrower petals are about equal in length and are separated. The drooping, spurless, spoon-shaped lip is deeply fringed and crested and is streaked with yellow and purple. Mr. Gibson noted that this Orchid had an odour of red raspberries. It is also one of the few Orchids having free dusty pollen. *Pogonia* is from the Greek, meaning a beard, and refers to the beautifully tufted, hairy crest in the middle of the fancy lip. There are thirty species of Pogonia widely distributed over the world, and only five of this number are found in

WILD COLUMBINE. *Aquilegia canadensis*

PITCHER-PLANT. Sarracenia purpurea

North America. All of them are spurless, and their lips are highly coloured and bearded with bristly hairs. The familiar vanilla bean, which furnishes the popular flavouring extract, is the fruit of an Orchid belonging to this group. This Pogonia is found during June and July, from Canada to Florida and west to Kansas, also in Japan.

GRASS-PINK. CALOPOGON

Calopògon pulchéllus. Orchid Family.

Contrary to most Orchids, this very beautiful, slender stemmed species has its lip, or most prominent petal, erected high over the flower instead of hanging from the lower side, as is usually the case. The slender, smooth, and naked stalk grows from twelve to eighteen inches in height, from a smooth, solid, round bulb. The solitary, sheathing, bright green grass-like leaf is long and very narrow with parallel veins, and also rises from the bulb. From three to fifteen showy, sweet-scented spurless, and purplish pink flowers are borne in a loose, terminal spike. The pointed-oval sepals and petals are nearly alike, and are separated and spreading. The long, upright, white-spotted and pale-pink lip is heart or wedge-shaped at the summit and is hinged at its base. It has a beautiful, dense beard of long, yellow, orange, or rose coloured, club-shaped hairs, which appear like so many stamens. Below the pretty lip extends a long, slender, curving three-lobed, petal-like pistil. This delicate beauty is more or less common in low,

wet meadows and swampy recesses, where its beautiful patches of colour may be found swaying above the tall grasses during June and July, from Newfoundland to Florida, and west to Ontario, Minnesota and Missouri.

ARETHUSA

Arethùsa bulbòsa. Orchid Family.

Winsome indeed are the large, solitary, rose-purple blossoms of this locally common Orchid, which blooms during May and June, in bogs and swamps where most people are not likely to wander. It is named after the beautiful nymph, Arethusa, whom the Goddess Diana transformed into a fountain to avoid the ardent attentions of Alpheus, the river god, who had fallen in love with her. The Arethusa is a spurless Orchid, closely related to the Pogonia, and has a delicate, violet-like fragrance. The smooth, slender stalk rises from five to ten inches high from a small bulb and bears from one to three loose, sheathing bracts. The long, slender, many-ribbed and grass-like leaf is solitary, and appears after the flowering period. The flower is nearly erect and is borne singly on the tip of the stalk from between a pair of small scales. Two of the sepals are spreading, while the other one with two petals is somewhat arched. They are all partly united and nearly alike. The conspicuous, drooping lip has a broad, rounded, and recurved apex, which is toothed or fringed, blotched with purple, and ridged with three white, hairy crests.

This Orchid ranges from North Carolina and Indiana northward to Canada.

PINK KNOTWEED. SMARTWEED. PERSICARIA

Polýgonum pennsylvánicum. Buckwheat Family.

This exceedingly common and familiar annual is usually found in moist, open, waste soils, everywhere from the Gulf States to Minnesota, Ontario, and Nova Scotia. The branching, jointed stalk is smooth below and hairy above, and grows in an irregular erect or sprawling manner from one to three feet tall. It is often flattened on one side, and has hairy, tissue-like sheaths at the joints. The long, narrow and stoutly-ribbed tapering leaves are toothless, and alternate upon the stalk. The small, five-parted flowers vary from pink to white and are densely crowded into numerous, irregularly clustered, thick terminal spikes. The pink calyx takes the place of petals, and remains after the flowering period to enclose the flattened seeds as it did the buds. In her delightful book, "Nature's Garden," Neltje Blanchan truly says: "Familiarity alone breeds contempt for this plant, that certainly possesses much beauty." There are many varieties, closely related to this species, distributed through the country.

CORN COCKLE. CORN ROSE. CORN CAMPION. CROWN-OF-THE-FIELD

Agrostémma Githàgo. Pink Family.

The large, attractive magenta or purple red flowers of this terror of the wheatfields are pretty well known

throughout the length and breadth of the land. It is an immigrant from Europe, and as Theodore Roosevelt would say, it is an "undesirable citizen." It is despised by grain-growing farmers, who everlastingly condemn and destroy it. It is an erect, leafy annual, growing from one to three feet high, and is thickly covered with closely adhering, whitish hairs. The long, narrow, pointed leaves measure from one to four inches in length, and a quarter of an inch or less in width. It is occasionally branched. The showy flower has five broad, rounding, flaring petals, alternating with an equal number of long, narrow leaf-like sepals, which extend far beyond the corolla. It has ten stamens and five styles. The latter alternate with the calyx lobes, and are opposite the petals. The flower is borne singly on long, stout stems, and produces numerous rough, black, poisonous seeds. It is found frequently or occasionally from July to September, throughout its area, but most commonly in the Central and Western States. It may be found in many sunny, waste places, but is scarce in the dry region from California to Texas, and eastern Kansas. The United States Government classes the Corn Cockle among our principal poisonous plants, the dangerous qualities of which are contained in a soluble and odourless powder, called saponin. It possesses a sharp, burning taste, and provokes violent sneezing if inhaled in the smallest quantity. When agitated in water, it foams like soap. The objectionable element is found in all parts of the plant. The most harmful results occur from eating

bread made from flour containing the seeds which have been ground up with the wheat, and its continued use will cause serious chronic disorders. Low grades of flour often contain large quantities of Corn Cockle seeds, which can easily be detected by the presence of the black, roughened scales of the seed cases. Several machines have been invented for removing these dangerous seeds from the wheat, but as yet, none has been altogether successful. In New Hampshire, Corn Cockle is known as Old Maid's Pink, and in Nova Scotia it is called Mullein Pink, while the American farmer ever longs for a name that will fully express his contempt for it. The Latin name, *Agrostemma*, signifies "Crown-of-the-Field."

WILD PINK. CATCHFLY

Silène pennsylvánica. Pink Family.

What the Wild Pink lacks in height, it more than makes up in a wealth of lively colour which gleams from the crevices of rocky banks in dry, open woods during May. It is a low, tufted perennial, growing only from four to ten inches high. The upper part of the plant is sticky and hairy. The hairy edged foot leaves are long and narrow, becoming wider toward the suddenly pointed apex, and tapering at the base into broad stems. The smaller upper leaves are seated directly upon the stalk in pairs and are pointed-oblong or lance-shaped. The beautiful pink flowers are an inch broad, and several are gathered in a rather broad, flat-topped, terminal cluster, forming an attractive,

glowing mass which may be seen for quite a distance. The deep, narrow, tubular calyx is covered with very fine, sticky hairs. The five flaring, rose-pink petals are wedge-shaped, with notched tips. They taper into narrow, pointed claws which sit within the calyx. The flower has ten stamens and a pistil. This species is found from April to June in dry, sandy, gravelly, or rocky soil, and ranges from Maine to Georgia and Kentucky.

SOAPWORT. BOUNCING BET. HEDGE PINK. BRUISEWORT. FULLER'S HERB. OLD MAID'S PINK. SHEEPWEED

Saponària officinàlis. Pink Family.

Just why this naturalized European adventurer, which long ago escaped from the Colonial gardens, should be called Bouncing Bet, is not at all clear. Perhaps its wandering nature, cropping up here and there in waste places as it does, coupled with its comely, honest, wholesome, calico-and-gingham, look-you-straight-in-the-eye appearance as it stands and stares, or as it bobs about with the wind, gives some idea of how it happened. However, "a rose by any other name would smell as sweet," and so the beautiful, clustered flowers of the rough-and-ready Soapwort will continue to delight us from July to September, along dusty roadsides, edges and corners of neglected fields and farmyards and railroad banks, where it grows luxuriantly, and often grouped in great patches. It is everywhere common, and increases by means of under-

ground runners or stolens. The roots have some medicinal value as a tonic, and when placed in water and agitated, they form a soaplike lather — a peculiarity that gives rise to the common names of Soaproot and Latherwort. The slightly grooved, erect stem is smooth, stout and leafy. It is sparingly branched, and grows one or two feet high. It is noticeably swollen at the joints, and is green in colour, sometimes stained with red. The thick-textured, tapering oval leaves grow alternately in pairs, and graduate as they mount the stalk. Their smooth surface shows three or five distinct ribs, and the margins are entire or very faintly scalloped. They unite at the base where they narrow into broad, short, clasping petioles. The showy, fragrant flowers are about an inch broad and are pink in colour, becoming white in proportion to the amount of shade in which they grow. The thin-textured petals are generally notched, and taper clawlike to their narrow, pointed base within a long, pale green, finely veined, five-toothed tubular calyx, from which they emerge and spread at right angles. At the top of the claw where the petals widen, they are crowned with two little, thread-like appendages. The ten yellowish stamens are divided into five long and five short sets, the former of which mature before the latter. The pistil has two recurving points or styles. The flowers are borne in a loose, terminal head, with many small bracts or floral leaves. A short, slender stem connects the calyx with the stalk, which it joins at the axil of the smaller leaves. This short flower stem usually

bears a tiny pair of leaflets just below the calyx. Double flowers are not at all uncommon, and they are unusually attractive. As a rule, single and double flowers are not found in the same group. After the flowers mature, the calyx frequently splits apart and causes the fading petals to have a most dilapidated appearance, and October finds the storm-tossed stalks withered and broken — a sorry contrast to its midsummer gaiety.

DEPTFORD PINK

Diánthus Armèria. Pink Family.

A pretty, unobtrusive immigrant from Europe is the Deptford Pink, resembling the familiar Sweet William of our gardens, and to which it is a near relative. When one considers that this Pink belongs to the same family as the famous Lawson Pink of ten-thousand dollar parentage, it is not difficult to imagine that it feels ill at ease and out of its class in our fields and meadows, or along our grassy roadsides, where it has become thoroughly naturalized. It is a stiff, erect annual, growing from six to eighteen inches high, and is covered with very fine hairs. The slender, green stalk is slightly branching. The long, narrow pointed leaves are strongly ribbed, downy surfaced, and firm-textured. They occur in alternating pairs, which unite and clasp the stem with a prominent joint. The lower ones are blunt at the tip. The small, five-petalled flowers usually occur in pairs, terminally clustered or springing from the axils of the leaves on

OSWEGO TEA. BEE BALM. Monarda didyma

short, slender stems. The large, five-parted, green, tubular calyx is guarded by four narrow, stiff, sharply toothed and pointed bracts, which give the flowering head a crowded and bayonneted appearance. The bud reminds one of an oat. The oblong petals have finely notched tips. They are deep pink in colour, and the surface is minutely speckled with whitish dots. The generic name, *Dianthus*, signifying Jove's own flower, was applied to the Pinks by Theophrastus, the Greek philosopher, who greatly admired their exquisite fragrance and beauty. This Pink is found from Maine to Virginia, and westward to Michigan and Iowa, during July and August.

PINK CORYDALIS

Corydális sempérvirens. Fumitory Family.

Although the tall, branching growth of the Pink Corydalis does not compare satisfactorily with that of the low, clustered, and single-stemmed grouping of the Dutchman's Breeches, the peculiarly flattened corolla of the flowers suggests their kinship. At sight the dangling flowers of this species appear to be incomplete, and one fancies that there should be more of them. They look, for instance, as if they had been originally something like those of the Dutchman's Breeches, but that some one had cut them all in two, and that only a single part, or "leg," had survived the operation. They seem to rest on the point of their little stems like a tiny flock of fairyland swallows,

undetermined whether to linger or depart, and there they bob and nod, and sway and swing in silent convention, until finally their spirit bids them and they are gone. The airy Corydalis reigns supreme wherever it can gain a foothold on the terraced balconies of rocky cliffs, in partially moist and open woods. It is found from Nova Scotia to the Canadian Rockies and Alaska, and south to North Carolina and Minnesota from April to September. The smooth, irregularly branched stem is pale green, sometimes slightly stained with red, and always covered with a whitish bloom. It grows from one to two feet in height, from a fibrous annual root. The comparatively small, compound leaf is pale green in colour, smooth and rather delicate in texture, with the under surface showing a whitish bloom. It is divided into several, often three or five, deeply cleft leaflets with their margins unevenly lobed and scalloped. The lower leaves have short, smooth and slender stems, and the upper ones are set alternately on the stalk. The strangely flattened flower is usually less than an inch in length. The irregular, tubular corolla has two pairs of erect and converging petals; one of the outer pair, which are joined together, is formed into a very short and rounded, bag-like spur on the upper part of its base, the inner pair are very narrow and are keeled on the back. The six stamens are arranged in two pairs of three each, opposite the outer petals. The fragile flowers hang upside down, and are gathered sparingly toward the end of a slender stem. They have a two-parted, scale-like calyx and

one pistil. The spurred end of the flower is deep pink in colour, fading nearly to white toward the yellow-tipped end. The lovely plant, with its delicate shadings of pink, pale green, and yellow is especially pleasing. After the flowers perish, the seed pods become prominent, and when matured, they measure an inch or two in length. They are slender, flattened, and erect.

HARDHACK. STEEPLE BUSH

Spiraèa tomentòsa. Rose Family.

This lovely rose-coloured perennial is similar to the Meadow Sweet, and often found near it, but the Hardhack has smaller flowers arranged in slender, long-pointed, floral steeples, and woolly stalks of a peculiar light brown colour. The under surface of the pointed oval, dark green leaves is also very woolly, and varies from a whitish to the same brownish colour of the stalk. The latter is erect, very leafy, usually unbranched, and grows two or three feet high. The leaf has a strong midrib, and an unequally toothed margin. The leaves have short stems that curve smartly upward as they join the stalk, and which give a nifty set to the foliage and charming perkiness to the handsome plant. The pretty little flowers and their tiny stamens are deep rosy-pink in colour, and are densely arranged in rather stiff terminal spikes. They blossom from the apex downward, and before the lower ones begin to open, the forerunners have faded to a light brown. The Hardhack blooms from

July to September in low, moist grounds and adjacent hillside pastures, from Nova Scotia to Manitoba and south to Georgia and Kansas.

PURPLE FLOWERING RASPBERRY. VIRGINIA RASPBERRY

Rùbus odoràtus. Rose Family.

The five large, deep pink, rose-like petals and the ring of light yellow stamens of this attractive flower give it a truly Wild Rose-like appearance. While it is really a member of the same family, its large, maple-like leaf easily distinguishes it as the Virginia Raspberry. The erect, branching, leafy stalk grows from three to five feet high, and is somewhat bristly, but thornless. The strongly veined, but loose-textured leaf is sometimes nearly a foot broad, and has three or five pointed lobes, the middle one of which is the longest. It has a heart-shaped base, a finely toothed margin, and a slightly rough surface. The leaves grow alternately, and are set on long stems. The fragrant, showy, purplish pink flower is an inch or two broad and has five rounded, curving petals which fade to a lighter shade. The calyx has five long, pointed parts and is thickly covered with sticky, red hairs. The numerous flowers are borne in loose terminal clusters on short, sticky, reddish stems. They continue to blossom even after some of the fruit has begun to ripen. The fruit resembles that of a flat red raspberry and is scarcely edible. The Virginia Raspberry is found in rocky woods and along shady roadways

during June, July, and August, from Nova Scotia to Ontario and Michigan, and south to Georgia and Tennessee.

The Salmonberry or White Flowering Raspberry, *R. parviflorus*, is a similar species, having fewer, white, oval-petaled flowers and less bristly but coarser-toothed leaves, the latter having the centre lobe, not conspicuously longer than the others. It is found in rocky woods from Michigan and Minnesota to Alaska and California, and south in the Rocky Mountains to Utah and Colorado, from May to July. The fruit is red.

WILD ROSES

Of all the flowers exalted by mankind, none has been more frequently associated with his history and literature than the Rose. Its praises have been sung in many tongues, and its popularity harks back to very ancient times. Tradition repeatedly ascribes many and varied accounts to the Rose. The red Rose is a token of love and affection; the redder it is, the better it is so understood and accepted. The Turks hold that red Roses sprang from the blood of Mohammed. The Rose of Jericho has been called Saint Mary's Rose, and is said to have first blossomed at the Saviour's birth, closing its petals upon His Crucifixion, and reopening them again at the Resurrection. For over three hundred years, May 1st was gorgeously observed in France as the Tribute of Roses, when the youngest peer presented a silver bowl of Roses to the Court. In Egypt,

mattresses made from the sun-dried petals are luxuries — beds of Roses — enjoyed only by the very wealthy. The ancient Greeks and Romans were extravagant in the use of Rose garlands and wreaths for decorative purposes, and at the magnificent feasts of Cleopatra and of Nero, everything was lavishly decked with them. Fountains of Rose water in operation were famous attractions at some of their marvellous social affairs. The Romans placed a Rose over the entrance to their feasting halls, and all who passed beneath it understood that whatever happened within the hall was to be *sub rosa* — under the Rose — and was to be kept secret and never disclosed. The Romans also used the Rose in their funeral rites, and in China Roses and Anemones are used for similar purposes. The Rose was the flower dedicated to Venus. In the writings of Shakespeare, the Rose is mentioned more frequently than any other flower. In Germany, France, and Italy, frivolous maidens bury a drop of blood under a Rose bush to ensure rosy cheeks. The Rose is the floral emblem of Iowa, New York, and North Dakota. An annual festival celebrated in California is named the Tournament of Roses. Portland, Ore., is called the City of Roses. June is known as the month of Roses. One of the most costly perfumes in the world is Attar of Roses, and ten tons — twenty thousand pounds — of petals are required to make one pound of this precious oil, which is valued at two hundred dollars per pound. Candied Rose petals are considered a

dainty confection. And so on, and so on, one could add to this endless subject.

SMOOTH, OR MEADOW ROSE

Ròsa blánda. Rose Family.

A low-growing, large flowered, and, usually, thornless species which grows from two to four feet high in moist, rocky places. From five to seven bluntly tipped and sharply toothed, oblong leaflets form the compound leaf. The thin, dark green foliage is paler beneath, and the short leaf-stem is guarded with a conspicuous pair of wings that clasp the stalk at the joint. The handsome, large, pink flowers are slightly fragrant, and are often three inches broad. They are either solitary or sparsely grouped on slender stems. The petals are broad and curving, and the numerous yellow stamens are clustered around the flat, central disc of greenish-yellow pistils. The green calyx has five lance-shaped sepals that remain erect upon the ripening globular or pear-shaped fruit. The Meadow Rose blossoms during June and July, from Newfoundland to New England and New Jersey, and west to Ontario, Illinois, and Missouri. It is rather more common in the Great Lake region than elsewhere.

CANKER ROSE. DOG ROSE. WILD BRIER

Ròsa canìna. Rose Family.

During June and July, the Dog Rose spreads its beautiful, and usually solitary, pink or white flowers along our roadsides and waste banks. It grows about

ten feet in length, and has short, stout, hooked spines. The stipules, or wings, which sheath the leaf stems, are broad and pointed. The leaflets are rather thick-textured and oval in shape. This Rose resembles somewhat the Sweetbrier, but the foliage is single-toothed and does not possess the aromatic fragrance of the latter. It is abundant in the Delaware Valley, and is more or less common from Nova Scotia to New Jersey and Pennsylvania, and also in Tennessee. This Rose is the Cat-whin and Canker-bloom of Shakespeare.

SWEETBRIER. EGLANTINE

Rosa rubiginosa. Rose Family.

You can positively identify the Sweetbrier by the delightful, aromatic fragrance of its leaves. It is a slender growing species, very common everywhere in dry, rocky pastures and waste places during June and July. This is the exalted Eglantine of Chaucer, Spenser and Shakespeare. The gracefully arching branches are very leafy, and are armed with many stout and strongly hooked or recurved prickles. It grows from four to six feet long. The leaves are compounded of from five to seven very small, rather thick, oval or oblong and sharp, double-toothed leaflets, which are densely covered on the underside with tiny, dark, sticky glands, and these exhale the pleasing perfume. The leaf-stems clasp the stalk with a pair of narrow, pointed wings or stipules. The small, creamy-pink flowers are generously clustered along the main stalk. They have five curving, heart-shaped petals,

PINESAP. Monotropa Hypopitys

INDIAN PIPE. Monotropa uniflora

SCARLET PAINTED CUP. Castilleja coccinea

and numerous curving, yellowish stamens. The bright red fruit is oval in shape and endures throughout the winter. Each of the five long, narrow, spreading sepals is notched into several tips. The Sweetbrier ranges from Nova Scotia to Ontario, Tennessee and Virginia.

SWAMP ROSE

Ròsa carolìna. Rose Family.

This very bushy species grows from one to eight feet high, and is sparingly armed with distant, stout, usually hooked or curved thorns. Five to nine finely toothed leaflets, varying in shape from oval to oblong or even lance-shaped, form the compound leaf, which has a narrow pair of stipules or leaflets at the base of the slender leaf stem. The beautiful pink blossoms are two or three inches broad. They have numerous yellow stamens, and are loosely grouped. The long, narrow, spreading sepals do not, as a rule, remain on the showy, globular red fruit as do those of the Meadow Rose. The Swamp Rose is common everywhere in swamps and low grounds, from June to August. It ranges from all of the Atlantic Coast States westward to Minnesota and Mississippi.

LOW, OR PASTURE ROSE

Ròsa hùmilis. Rose Family.

This is the commonest and most abundant of all the wild Roses. It grows branching and bushy, from six inches to six feet in height, and has very slender,

straight, light brown thorns at the base of the leaf stem, where they are generally set in pairs. Usually five rather thin, oval or sharply pointed, sometimes shining, and irregularly toothed leaflets form the compound leaf. The leaf-stem is guarded at the base with a pair of narrow, flaring wings that clasp the stalk. The numerous, fragrant pink flowers are usually solitary, and are two or three inches broad. Five prettily curved, heart-shaped petals are exquisitely set off with a circle of numerous yellow stamens, which are gathered around the darker centre of clustered pistils. The calyx has five long, spreading green divisions, the outer ones of which are always more or less lobed. In New Jersey and Pennsylvania, a charming double-flowered variety occurs. The Pasture Rose often grows in great, tangled masses, and when at the height of bloom these are exceedingly beautiful. This Rose is partial to dry, rocky soil, and blossoms from May to July, from Nova Scotia to Florida and west to Minnesota, Missouri, Oklahoma, and Louisiana.

RED, PURPLE, OR MEADOW CLOVER

Trifolium pratense. Pea Family.

The Red Clover is the state flower of Vermont, and is one of the commonest, largest-flowered, and best-known of the Clovers. Some years ago this red-headed beauty created a sensation among botanists and agriculturists that is very interesting. A quantity of the seed was introduced into Australia where it was

cultivated and grew beautifully, but the flowers failed hopelessly to produce seed the first year. Again another lot of seed was planted, and when the new plants began to blossom, a number of bumblebees, especially imported from America, were liberated among the flowers. The result was immediately gratifying, and from that day to this, Australia has successfully cultivated the Red Clover. Consequently, our dear old bumblebee has established, beyond any possible doubt in the minds of the pessimistic, the absolute dependency, for its very existence, of at least one flower upon insect life. Cross fertilization did it.

> "Now and then the honey bee,
> Laden with its treasure,
> Darting from the Clover blooms,
> Hums its drowsy measure."

Our warmest memories revert to those happiest days of our childhood, when we actually "lived in Clover," and ate "Sour Grass," and sucked the honey from the nectar tubes of the florets which were pulled from the Clover heads. Pity the child who is denied the opportunity of roaming the fields and doing likewise!

This perennial species is extensively cultivated for forage, and was originally introduced into America from Europe. The rather large, leafy, and branched stalk is more or less hairy, and rises erect, from six inches to two feet in height. The Clovers form large, loose, spreading tufts, and their slightly veined leaves are long-stemmed and thin textured. They are compounded commonly of three, or occasionally of

from four to eleven, short-stemmed oval, long oval or egg-shaped leaflets, which are often notched at the apex and narrowed toward the base where they unite at the same point. Their margins are almost entire, and their surface is marked with white or cream-white, triangular forms. The joints are sheathed with a pair of bristly pointed wings or stipules. The large, handsome flower head is globe or egg shaped, and is set closely between a pair of compound leaves at the tip of the branches, and from the side of the stalk. It is composed of many densely clustered florets. The colour varies from crimson to magenta with white bases, the latter showing less distinctly at a distance. The florets finally fade to a dark brown, but they remain erect until after the fruit ripens. The Red Clover grows perennially in fields and meadows everywhere, and is particularly common east of the Mississippi River. It blossoms from April to November, according to locality. This species is also a native of northern Asia.

ALSIKE. ALSATIAN, OR SWEDISH CLOVER

Trifolium hybridum. Pea Family.

The Alsatian Clover resembles the White Clover, except that the stalk is erect or ascending, and it does not root at the joints. The flower heads are delightfully tinted with a charming pink or rose colour slightly diffused with cream, and are, therefore, somewhat more beautiful than the latter species. They are exceedingly fragrant, and generally common.

The round, grooved, branching stalk is sometimes stout and juicy. It is nearly smooth, very leafy, and rises from one to two feet in height. The leaves are set on long, slender stems, and where the latter joins the stalk, the union is protected by two thin-textured and flaring wings or stipules. The leaf is compounded of three egg-shaped leaflets, which narrow toward the base and unite with short stems at the same point. They are unmarked, and the margins are finely cut with sharply pointed teeth. The numerous small florets are often nearly white. They are densely crowded into rounded heads on the tips of slender stems. The corolla is three or four times as large as the calyx, which is finished with awl-shaped teeth. As the florets open, they spread outward and downward; and as they fade, the dried, light brown husks form a rusty collar around the stem, lending a ragged touch to the tidy, still blooming florets above them. This species is sometimes cultivated for fodder. It blossoms from May to October, in meadows and along waysides, from Nova Scotia to Idaho, and south to New Jersey and Georgia.

WHITE, OR TRUE WOOD SORREL. ALLELUIA. SOUR TREFOIL. SHAMROCK

Óxalis Acetosélla. Wood Sorrel Family.

Oxalis is derived from a Greek word, meaning sour, and refers to the acid juice of the plant. In the cool, shady recesses of our mountainous regions this dainty plant is fairly rampant. Our Northern forests are

literally carpeted with its fretwork of leaves, which are formed into green patches, or beds of every conceivable angle where they are crisscrossed by the runways of deer or moose and decaying, mossy trunks of fallen trees. In May and June these lovely, leafy groupings are starred with the strikingly large and beautiful flowers which are white, pink-tinted or veined. The Clover-like leaves fold downward at night, not unlike a clumsy umbrella. This species is native in Europe, Asia, and Northern Africa. It was familiar to the old Italian masters, and was introduced into some of the early Christian paintings by Angelico and Botticelli. Oxalic acid is produced from its leaves, and is commonly known as Salt of Lemons, which is extensively used by painstaking housewives and laundresses for removing rust stains from linen. The leaves are borne on slender stems, which, rising from a scaly, creeping rootstock, grow to be from two to six inches in height. The single flower is broadly bell-shaped, and has five rounding, notched petals, with five long and five short stamens. This plant also bears the curious, bud-like flowers that fertilize themselves without opening, and which are called cleistogamic, and are borne near the root on short, curved stems. The name Alleluia came to be a favoured one in England, because the flowering season occurred during Easter week. Some believe this to be the true Shamrock of the ancient Irish, dating back to the time of St. Patrick. The White Wood Sorrel ranges from Nova Scotia to

Manitoba, and south to New England and New York, and in the mountains to North Carolina.

VIOLET WOOD SORREL

Óxalis violàcea. Wood Sorrel Family.

This delightful species is found much further southward than the White Wood Sorrel. It has a brownish, scaly, bulbous root. The dainty flowers are rose purple in colour, and several, a dozen or less, are clustered on a slender stem or scape. The leaf stems rise from four to nine inches, and the strongly ribbed, Clover-like leaves grow in little tufts of from four to eight. The Violet Wood Sorrel ranges from New England to the Rocky Mountains, and south to Florida and New Mexico, in rocky, sandy woods, during May and June.

WILD GERANIUM. SPOTTED CRANE'S-BILL. ALUM ROOT

Gerànium maculàtum. Geranium Family.

The large, showy, rose purple flowers of the Wild Geranium enliven the monotony of low and shaded parts of moist, open woods and thickets, from April to July. They are odourless, and their colour varies greatly, according to the temperature of the season and their exposure to sunlight. The flower has five well-rounded, wedge-shaped petals. The latter are exceedingly delicate in texture, and show five fine, transparent lines spreading from the whitish base which is slightly fuzzy or bearded. Ten spreading,

violet-tipped stamens, five of which are shorter than the rest, surround a slender, five-pointed, green pistil. This remarkable pistil grows an inch or more in length, and as the fruit matures, it suddenly splits upward from the base in five recurved parts, snapping the seeds sharply in various directions. This is one way in which the plants spread and increase by their own effort. The shape of this curious pistil created the name of Crane's-bill. *Geranium* is the Greek word for crane, and *maculatum* alludes to the peculiar white spots and blotches so often found on the leaves. The calyx is five-parted, and hairy. Each part or sepal terminates with a sharp, bristling point. The single stalk branches at the union of a pair of short-stemmed leaves, and each of the several branches is often forked, causing the flowers to occur very commonly in pairs. The grooved stalk is stout-fibred, and rises a foot or two in height. Excepting the petals, the entire plant is covered with minute, whitish hairs. The large, spreading, coarsely veined leaf is deeply divided into three or more, usually five, sections, each of which is again cleft into three more or less sharply notched lobes. The basal leaves are long-stemmed. The general colour is a medium light green above, and of a lighter shade on the under side. In autumn they turn to a brilliant scarlet, and are particularly attractive. The Crane's-bill is very touchy, and wilts hopelessly almost as soon as picked. The flowers are very fragile, and the petals usually drop away upon the slightest provocation. The thick,

brownish, fleshy rootstock has a puckery taste, strongly suggesting that of alum, and for this reason it is known as Alum Root. It is considered one of our most desirable astringents, and owing to its lack of bitterness, it is especially adapted for infants and for persons having very delicate stomachs. It is a popular domestic remedy, and is said to have been used by the Indians. It is found more or less commonly from Newfoundland and Manitoba, south to Georgia, Alabama, and Missouri.

HERB ROBERT. RED ROBIN. RED SHANKS

Geràn̄ium Robertiànum. Geranium Family.

This plant received much notoriety during the time of Robert's Plague, when it was believed to have effected many cures. It has been called the "holy herb of Robert." Just where it received the name of Robert is an open question. Some say that it was named after St. Robert, a Benedictine monk, while others hold that it was named after Robert, Duke of Normandy. When bruised it emits a disagreeable odour, and its juice has an astringent and bitterish taste. As a medicine it is used in cases of intermittent fever, jaundice and various other ailments. It is also used externally for relieving swellings, and is employed as a gargle in throat affections. The weak, leafy, slender stalk branches extensively, and grows from six to eighteen inches high. Because it is stained with crimson, the Scotch Highlanders call it Red Shanks. The thin leaves are usually set in pairs, on

long, slender stems. They are strongly scented, and are rather ornamental, being cleft into three or five divisions, with their margins deeply cut and notched into fine lobes or teeth. They are often stained with red. The little, short-stemmed flowers are usually paired, and are somewhat bell-shaped with their five petals widely spread. They are red purple in colour, and have ten coloured stamens and a pink pistil. The hairy green calyx has five parts, and the seed pod has a long, slender beak. The pod has a peculiar habit of bursting suddenly open and flipping the seeds sharply in every direction. Herb Robert blossoms from May to October in moist, rocky woods and shaded ravines, from Canada to Pennsylvania, and Missouri.

FRINGED MILKWORT. FLOWERING WINTERGREEN. GAY WINGS

Pol'ygala paucifolia. Milkwort Family.

The peculiar construction of this very dainty and charming flower at once suggests that of an Orchid. The single slender stalk rises from four to seven inches from slender, prostrate stems and rootstocks. The pointed oval or oblong leaves are gathered toward the summit of the stalk. They are narrowed into short stems. Small, clasping, bract-like leaves are scattered sparingly along the stalk. They are thick, smooth, glossy and rough-margined. The delicate, bright, rose-purple flowers are likened to gaily winged butterflies. Two of the five sepals are highly coloured like

petals and form a pair of wide-spreading wings on either side of the corolla. The three white petals are formed into a long, slender tube enclosing the stamens, and the lower one, which is parted and extended, is beautifully fringed. It also bears an underground flower that matures in the bud. The leaves endure the winter, becoming reddish and bronzy before they are replaced in the spring. The Milkwort blossoms from May to July, in rich, moist woods, from Georgia and Illinois northward into Canada.

FIELD, OR PURPLE MILKWORT

Polýgala sanguínea. Milkwort Family.

Such a tiny, delicate, crimson-headed sprite of a flower may be easily overlooked in the grass. The erect, wiry stems grow from six to fifteen inches in height. It is very leafy, branches at the top, and is somewhat angled. The small, narrow, acutely-pointed leaves are thick and clasping. Their margin is entire, and they are alternated on the stalk. The Clover-like flower heads are composed of numerous tiny flowers, closely clustered in a thick, oval spike. Green flower heads are often found growing in company with the crimson ones, and the two together are very curious and pretty. The tiny petals of the flower are enveloped with two enlarged, crimson sepals which are overlapped so tightly that the petals are hidden from view. The lower rows of flowers mature in succession and drop away as the head is prolonged.

Polygala is the Greek word for much milk, and cattle feeding upon the plants were formerly supposed to yield larger quantities of this commodity. This Milkwort is found in fields and meadows from New England south to North Carolina, and west to Minnesota, Arkansas, and Louisiana, from June to September.

LOW, DWARF OR RUNNING MALLOW. CHEESE FLOWER

Málva rotundifólia. Mallow Family.

Common everywhere about dooryards from May to November. The flowers resemble in miniature the Hollyhocks of our gardens to which they are related. Children greatly relish the edible seeds or "cheeses," as they fondly call them because of their shape. The roots and seeds contain a soothing mucilage, which is used in compounding medicines as a non-irritant. The flowers yield a blue colouring matter which serves as a test of acids and alkalies, being reddened by the former, and rendered green by the latter. The weak, slender, spreading stalk branches at its base and is deeply rooted. The dark green leaves are rounding heart-shaped. They are scalloped with five or more shallow lobes which have finely toothed margins. They are slightly fluted by the radiating ribs, and are set on long, rough stems. The small, flaring, bell-shaped flowers are clustered close to the stalk on short stems springing from the angles of the leaves. The five oval petals are notched at their tips, and are tinted

with pink and faintly lined with veinings of a deeper hue. The hard, flat, rounded seed is composed of about fifteen parts, or carpels, and is surrounded by a five-parted calyx, which partly enfolds the seed with its long, pointed tips. The seed is green at first, but gradually turns brown as it ripens.

SWAMP ROSE-MALLOW. MALLOW ROSE

Hibiscus Moscheùtos. Mallow Family.

The gorgeous pink, flaring, bell-shaped flowers of the so-called "Marsh Mallow" may be seen near the edges of brakish marshes during midsummer along the Atlantic Coast from Massachusetts to Florida and Louisiana, and also inland in the Great Lake region. Wherever they are found, they will recall the dignified Hollyhock sentinels that used to peep over the red brick walls in the Kate Greenaway nursery picture-books we all loved so well. And it 's a natural suggestion, too, since both flowers are cousins. The Hollyhock came to us from China, where it certainly could never see over the wall! There is a certain tropical air about the Rose-Mallow that impresses one with its grandeur. It is so large and stately, so fresh and lovely, so prosperous and beautiful, this tall, handsome plant, that one cannot well resist the temptation to become better acquainted with it. But this is not altogether an easy matter, because it chooses to keep aloof from inquisitive mortals and has a tantalizing way of growing just beyond one's reach in the deep, treacherous quagmire where it is found. It is one of our largest wild

flowers, and measures from four to seven inches broad. The five large, rounded, wedge-shaped petals are a pure, rosy pink in colour, sometimes entirely white, and often marked with a rich, crimson blotch at the base. They are strongly ribbed. The long, slender pistil splits into five flat-headed tips, and for most of its length, it is enclosed with a tube bearing many pale yellow stamens. The five-parted calyx is supported with a row of ten narrow bractlets. The flowers are clustered on short stems at the top of the stout, leafy, cane-like stalks, several of which spring from a perennial root, and rise from four to seven feet in height. The large, oval leaves taper sharply to a slender point, and are rounded at the base. Often they have a short pointed lobe on either side. The margins are indented with small, rounded teeth. The surface is smooth above and the colour is full green. The underside is covered with a soft, whitish down, and the ribs show prominently.

The Marsh Mallow, *Althaea officinalis*, is a much smaller and altogether different species, which has been introduced from Europe and has become naturalized in salt marshes along the coast from Massachusetts to New Jersey and locally westward to Michigan and Arkansas. In Europe it is raised for its thick roots, from which is obtained a mucilage used in making the white marshmallow candy sold at every confectionery store, and also as an important ingredient in preparing cough syrups. It is interesting to note that another relative is the common okra, a familiar

market vegetable, which yields a thickening substance used in making soup. Still another kinsman, the Rose of China, is a hot-house species, whose petals, it is said, are employed by Chinese housewives in staining their teeth black!

MEADOW BEAUTY. DEERGRASS

Rhéxia virgínica. Melastoma Family.

There is a pleasing individual air about this delicate beauty that is always sure to win our admiration as it sways its captivating golden-spangled, bright purple flowers among the tall grasses of our sandy marshes during August. With slightly winged angles, the square, more or less hairy, rather stout and branching stalk grows from twelve to eighteen inches in height. It is grooved and of a light green colour. The thin, finely toothed, pointed oval leaves have three noticeable ribs, and they are arranged in alternating, opposite pairs. They are stemless, and a few hairs are scattered sparingly over their otherwise smooth surface. The large, fragile flowers are gathered in small terminal clusters, on slender, leafy branches which spring from the angles of the leaves in corresponding pairs on this nicely balanced plant. They usually open one at a time, and perish soon after they are plucked. The four rounded, spreading petals are inserted on the summit of the hairy, urn-shaped calyx. The eight long, purplish stamens are capped with large, semicircular, bright yellow anthers which are very conspicuous. The pistil is long, slender, and crooked.

This species ranges from Maine to Florida and west to Illinois, Missouri, and Louisiana.

GREAT, OR SPIKED WILLOW-HERB. FIREWEED

Epilòbium angustifòlium. Evening Primrose Family.

In low grounds, especially in recent clearings and newly burned over lands, the tall, showy, swaying, magenta spikes of the Fireweed attract our attention during June, July and August, from coast to coast. So promptly and persistently does it follow in the destructive tracks of fire and axe that I have often thought this Phoenix of our woodlands raised its brilliant danger signals as a silent protest and warning against the reckless devastation of our depleted forests. The upright, rather stout, simple or branched stalk grows from two to eight feet in height. The very short-stemmed, alternating, thin-textured leaves are lance-shaped — long and narrow, resembling willow leaves — and are úsually toothless. They are pale beneath, and their lateral veinings curve into each other near the edge. The perfect rosettes of tufted basal leaves are extremely ornamental in their geometric formation. The flower has four rounded, widely spreading, pink petals that are broadest above the middle. The four long, narrow, pointed, brownish sepals alternate with the petals between which they expose their entire length. It has one four-tipped pistil and eight spreading stamens. The flower is set atop a slender, silky, crimson or purple stained pod. The buds succeed each other closely and graduate in

WOOD BETONY. Pedicularis canadensis

CARDINAL FLOWER. RED LOBELIA. Lobelia cardinalis

size as they approach the tip of the curving spike. They are hung upside down, and become erect as the flower opens. The arrangement is loose and terminal. After the flower fades, the curving pod continues to lengthen and when it is ripe it splits asunder lengthwise, grotesquely and every which way, liberating a very fine, silky, webby mass of soft fluffy down to which are attached the tiniest seeds that float away with the breezes. Where this plant occurs in extensive colonies, it presents an unusually dilapidated and bedraggled appearance, which is not improved with the effects of rainy weather. The Fireweed is found from North Carolina, Kansas and California northward to Labrador and Alaska. The tender, reddish green shoots of this plant are considerably used as a pot-herb throughout the Northwestern States and Canada. And it is said that among the tribes of British Columbia the pith of the young stalk is cooked and eaten. The leaves and roots also have some medicinal qualities on account of their astringency. Kaporie tea, a beverage extensively used by the Russians, is made from the leaves of this species.

PURPLE-LEAVED WILLOW-HERB

Epilòbium coloràtum. Evening Primrose Family.

A very common, erect, and much-branched species with a finely haired stalk, growing from one to three feet high, in low grounds from Maine to Ontario, Wisconsin, Nebraska, South Carolina and Missouri, from June to September. The finely toothed leaf is

long and narrow, and usually very short-stemmed. The numerous pink or white flowers have four small rounded and notched petals and eight yellow stamens. The flowers are fixed on the end of a slender pod and are generally nodding. The purple-stained pod splits open in the fall and frees a mass of cinnamon coloured fluff. The stem and leaves are often tinged with purple.

PIPSISSEWA. PRINCE'S PINE

Chimáphila umbellàta. Wintergreen Family.

Pipsissewa was employed by the Indians in relieving affections of the skin and for rheumatism. It was also a very popular remedy among the early settlers of this country. The foliage, when crushed, exhales a peculiar odour, and the flowers are delicately perfumed. The perennial stalk creeps extensively underground, and sends up green, leafy branches a foot or so in height. The thick, shining, evergreen leaves are long-oblong, and widen toward the tip with a sharply toothed margin. They are arranged in whorls about the stalk. Several five-petalled, waxy, white or purplish flowers are gathered on curved stems in a loose terminal cluster. The centre is marked with a deep pink ring, and the ten purple-tipped stamens are spread against the widely flaring, concaved petals which encircle the large, thick, and sticky-topped green pistil. The round, brown seed cases ripen on the stem, which becomes erect after the petals fall. The flowers are found in

dry woods where there is plenty of leafmould, from June to August, and range from the Atlantic to the Pacific in Canada, and south to Georgia, Mexico, and California.

SPOTTED WINTERGREEN

Chimáphila maculàta. Wintergreen Family.

This species is very similar to the Prince's Pine or Pipsissewa, but can readily be distinguished by the white mottling of its tapering leaves. It does not grow quite so high either, and the leaves are lance-shaped, with sharp, distant teeth along the margins. The leaves are thick and smooth, and are arranged on the reddish stalk in pairs and in whorls. They are dark green and mottled with white along the veins. The white or pinkish flowers are quite like those of the preceding species. They are a trifle larger, and lack the pink ring in the centre. They are found from June to August in dry woods, from Maine and Ontario to Minnesota, and southward to Georgia and Mississippi.

WILD HONEYSUCKLE. PINXTER FLOWER. PINK, PURPLE OR WILD AZALEA

Rhododéndron nudiflòrum. Heath Family.

The lively flower clusters of the beautiful Wild Honeysuckle reflect the glory of spring with a vividness that is well-nigh unrivalled. The brilliancy of its fringy blossoms illuminates our open woodlands, hillsides and swamps from April to June, and as the

flowers usually burst into bloom before their foliage expands, they are particularly conspicuous and winsome. At this time, they also possess a peculiar attraction for small boys, who eagerly seek a singular edible pulpy growth, known to them as the May-Apple, which is found hanging among the fragrant flowers. Years ago this juicy, pale green morsel was supposed to have been caused by insects, but it is now believed to be a modified bud. The Wild Azalea grows from two to six feet high, and branches at the summit. The stalk is leafy, smooth, and woody fibred. The thin, oval leaves taper toward either end, and are set alternately or in clusters on the stalk. They are toothless, and short-stemmed, and their margins are finely haired. The colour is a lovely, soft, golden yellow-green. The large, tubular flower has five long-pointed, widely spreading divisions, each of which is creased from the throat to the tip. The pistil and five pink stamens extend far beyond the corolla. They are noticeably curved, and unusually long and slender. The flowers vary from pink or purple to flesh colour, or nearly white. The long, narrow tube is covered with fine hairs, and is set in a very small, five-parted calyx. Several flowers on short, green stems are gathered in showy, round-topped clusters on the ends of the flaring, angular branches. The Pink Azalea is found in dry, open, sandy, or moist, rocky woods and thickets, from Maine to Illinois, and southward to Florida and Texas. The Azalea is the national

flower of Flanders. Honey made from these flowers is said to cause ill effects.

AMERICAN, OR GREAT RHODODENDRON GREAT LAUREL. ROSE TREE, OR BAY

Rhododéndron máximum. Heath Family.

This plant has been considered to be the handsomest and most beautiful of our native ornamental shrubs. It is now highly esteemed and extensively used for decorating home grounds and parks. In the Alleghany regions it covers entire mountain sides so densely as to make any attempt to penetrate them well-nigh impossible. The flowers are arranged in large terminal clusters which nearly cover the plant during June and July, and present a sight that is magnificent beyond description. The wood is hard. and strong, light brown in colour, and a cubic foot weighs thirty-nine pounds. The Rhododendron has been adopted as the state flower of Washington and West Virginia. Honey made from the flowers is said to be poisonous. It is a tall, branching shrub, or sometimes a tree upward of forty feet high and a foot in diameter, but usually from six to thirty feet high. The long-oblong or broad lance-shaped evergreen leaves are narrowed toward the base, and are very smooth, leathery, toothless, and shiny. They are dark green, blunt-pointed, short-stemmed and strongly ribbed. The flower, which often grows two inches broad, is bell-shaped, with five spreading, oval lobes. They are usually rose coloured, varying to white, with a

greenish throat and spotted with yellowish or orange spots. They have ten equally spreading stamens and one pistil. The buds are cone-like, and the five-parted green calyx is very small. This magnificent plant is found in deep, damp woods and along streams in hilly country from Nova Scotia, Ontario, and Ohio to Georgia.

AMERICAN, OR MOUNTAIN LAUREL. CALICO BUSH. CLAMOUN. SPOON-WOOD. IVY-BUSH. KALMIA

Kálmia latifòlia. Heath Family.

This beautiful evergreen shrub is a close rival of the magnificent Rhododendron, and has been adopted as the state flower of Connecticut. It grows usually from three to eight feet high and upward, and often forms dense thickets that defy passage. It has been known to attain a rare height of forty feet with a diameter of eighteen inches. The wood is exceedingly hard and very heavy, a cubic foot weighing forty-four pounds. The leafy, angular branches are very stiff and irregular. The handsome, shining, dark green leaves are long-oblong in shape and pointed at either end. They are toothless, strongly ribbed, and smooth. They have very short stems, and are arranged either alternately or in opposite pairs, or terminally in small, clustered groups. The beautiful, fragrant flowers vary from pink to white, and are arranged on short, sticky stems in numerous, large, showy, terminal clusters, each of which is closely surrounded with drooping or hollowed

leaves, like individual bouquets. The flowers are curiously constructed. The corolla is bowl-shaped with five low points, and around the middle, on the outside, there is a circle of ten short, blunt projections forming, on the inside, tiny pockets in which are held the tips of the ten stamens. The silky, white stamens are arched backward from the centre of the corolla somewhat like spokes in a wheel. The pale green pistil has a ten-pointed star outlined in purple around its base, corresponding to the hub of the wheel. A slight touch releases the stamens from the little pockets and they snap violently toward the pistil, scattering a little shower of pollen and thereby accomplishing the purpose for which they were intended. The pink bud is cone-like and corrugated. The green calyx is insignificant. Honey made from these flowers has been found to be poisonous, and the Government has classed the Kalmias among our principal poisonous plants. The foliage is very destructive to cattle and sheep. It contains a dangerous substance which, when eaten, is more deadly than strychnine. Children have been overcome from the intoxicating effects of eating the young shoots, which they have mistaken for Wintergreen. The Indians were familiar with the poisonous nature of the leaves and made a decoction therefrom which they drank when disposed with suicidal intent. The leaves have also been used illegally to simulate the effects of cheap liquors. This handsome genus of American Laurels was dedicated to Peter Kalin, who was a pupil of Linnaeus, and who

travelled in this country. The Mountain Laurel blossoms during May and June in rocky, hilly woods and damp soil from Canada and Ohio to the Gulf States.

SHEEP LAUREL. LAMBKILL. WICKY. CALF-KILL. SHEEP-POISON

Kálmia angustifòlia. Heath Family.

Thoreau regarded this species as being "handsomer than the Mountain Laurel," but his point of view in this respect has not met with popular approval. The Lambkill has the reputation of being the most poisonous of the Laurels, and its foliage has caused many deaths among cattle. The plant is similar in most ways to the Mountain Laurel, but is much smaller. It grows only from six inches to three feet high with a few nearly erect branches and is very leafy. The drooping, evergreen leaves are oblong or lance-shaped, mostly in opposite pairs, or near the ends of the branches in small groups. They are smooth and dark-green, with yellowish midrib and short stems, and are frequently marred with rusty spots. The saucer-shaped flower is purple or crimson, with shiny, purple-tipped, pink stamens and a pink pistil. The flowers are arranged in loose, round clusters, whorled on the old stalk, or on one side just below the new, light green, erect leaves of the recent extension. In the Southern States, where the darkies go about barefooted, the leaves are used by them as a remedy for sore feet. Sheep Laurel is found

during June and July, in moist soil in swamps or in hillside pastures, from Canada to Georgia.

TRAILING ARBUTUS. MAYFLOWER. GROUND LAUREL

Epigaèa rèpens. Heath Family.

The rarest charm hovers about the Trailing Arbutus which is, perhaps, more intensified throughout the New England States than elsewhere, because of Whittier's popular poetic legend regarding this species as the first wild flower to greet the Pilgrims after they had landed at Plymouth Rock, and also because it is said to have been named after their famous ship, the *Mayflower*. Arbutus is sold on the streets of our principal Eastern cities every spring, at so much per bunch, and this practice should be strongly discouraged, since the plant is becoming more restricted in territory and scarcer each year. It has frequently been discussed as a candidate for our national flower, and there is much personal sentiment attached to it. Above all, it is one of the most popular and highly rated of our wild flowers. It thrives best in shady, evergreen woods where the soil is sandy and rocky, and where it spreads its slender, rusty-brown, hairy, branching and leafy stalk from six to fifteen inches in length. It clings closely to the ground under dried leaves, grass and pine needles, and often forms large patches. The thick, leathery, alternating, evergreen leaves are nearly oval, and at their base they are slightly heart-shaped. They are toothless, strongly ribbed, and net-veined,

green on both sides, and are set on short, hairy stems. The margin is wavy, and the surface is slightly rough. New leaves do not put forth until after the flowering season. The delicate, waxy flowers are rather large, and are closely clustered on the ends of the branches. Five rounded points spread from the tubular corolla, which is set in a small, five-parted, leafy, green calyx on a tiny stem. The pistil and ten yellowish stamens may be seen at the throat of the white or pinkish white blossom. The flowers are exquisitely fragrant, and when one considers their cool, damp surroundings so very early in the spring, they are exceedingly enticing. The Trailing Arbutus is found from March to May, from Newfoundland to the Northwest Territory and south to Florida, Kentucky, and Michigan.

SHOOTING STAR. AMERICAN COWSLIP. PRIDE OF OHIO

Dodecàtheon Meàdia. Primrose Family.

The pert, nodding flowers of this handsome perennial decorate the moist cliffs and ridges in open woodlands, and also the prairies, during April and May, from Pennsylvania to Georgia, and west to Manitoba and Texas. The flowering stalk rises one or two feet high from a basal cluster of pointed oblong leaves, which taper into narrow, winged stems. The rootstock is stout and fibrous. Several showy, purplish pink or white flowers are gathered into a loose terminal arrangement. These hang from slender, curving stems which spring from the tip of the stalk. The

five, long, narrow lobes of the corolla are bent sharply backward toward the stem, exposing five yellow-capped stamens, which are closely united, forming a cone, and a very long, thread-like pistil. The short tube of the flower is thickened at the throat, and marked with dark, purplish dots.

BITTER BLOOM. ROSE PINK. SQUARE-STEMMED SABBATIA

Sabàtia angulàris. Gentian Family.

The fragrant, bright, rosy flowers of the Sabbatia glimmer through the thickets and in the meadows where they grow abundantly, during July and August. The rather stout, much-branched stalk is sharply four-sided, and grows two or three feet high. The branches, which bear a single flower, are usually arranged in opposite pairs. The stemless, five-ribbed, pointed-oval leaves are clasping and somewhat heart-shaped at the base, and occur in pairs. The large, slender-stemmed flowers are rose-pink in colour and are marked with a central green star. The wheel-shaped corolla has five rounded, oval segments. The Rose Pink prefers rich soil, and ranges from New York to Florida, and west to Ontario, Michigan, Indian Territory and Louisiana.

SPREADING DOGBANE. HONEY-BLOOM. BITTER-ROOT

Apócynum androsaemifòlium. Dogbane Family.

The Dogbane is closely related to the Milkweed and has a sticky, milky juice. It is a leafy and widely

branching perennial, and grows from one to four feet high from a horizontal rootstock. The smooth stalk is usually stained on one side with red. The short-stemmed, toothless, oval leaves are round-pointed at either end, and are arranged in opposite pairs. They are smooth above, and paler and somewhat hairy beneath. The small, fragrant, bell-shaped flowers have five spreading, recurved lobes united in a tube. They are delicate pink in colour, with veinings of a deeper shade. The five yellowish stamens are united about the stigma. The nodding flowers all open at one time, and are borne in small, loose clusters on the ends of the branches. The slender, twin seed pods are four inches in length. During July great numbers of our most iridescent beetles are attracted to the foliage of the Dogbane, and when thus found, they furnish a sure means for identifying this plant. This species was considered at one time to be poisonous to dogs. It is common during June and July, along roadsides and in fields and thickets from Georgia, Nebraska, and Arizona, far north into Canada. Bitter-root is the state flower of Montana.

THE MILKWEEDS.
SILVERWEED. SWALLOW-WORT

Asclepiadaceae. Milkweed Family.

Our common Milkweeds have a certain strain of beauty and elegance peculiar to themselves. They may be readily distinguished by several conspicuous characteristics which are not likely to be confused

with those of any other family. Of course, nearly everybody knows that these plants are filled with a copious, milky fluid or sap that exudes upon the slightest provocation. It is also true, in a way, that something about most of them suggests the conventional type of rubber-plant that has become inseparable from the modern city apartment — more so, at least, than any other of the wild flowers. In the fall, the bursting seed pods expose a silvery, white mass of soft, silky substance of the finest quality. And this fluffy, flossy material is popularly gathered and utilized for filling sofa pillows. The intricate construction of the unique flowers is of unusual interest. They are comparatively small, and are set on slender stems which spring from a common centre and form a well-grouped terminal cluster, known as an umbel. The five-parted calyx is bent abruptly downward from the deeply cleft and five-parted corolla, which is crowned with five erect or spreading hoods seated on the stamen tube, and each of them encloses a little incurving horn. Five short, stout stamens are inserted on the base of the corolla within the crown, and their fringed tips form a tube which incloses the pistil. The broad anthers are united with this tube at their base and form a prominent flat-topped, sticky, five-angled, stigmatic disk. The vertical cells of each anther are tipped with winged membranes containing a flattened, pear-shaped, and waxy pollen mass, hung in pairs from the stigma, like tiny wishbones. These tiny wings become wedged on the feet of bees and are

carried by them to other flowers, thus completing a very remarkable means of cross-fertilization, which, by the way, is a very wonderful study in itself.

PURPLE MILKWEED

Asclèpias purpuráscens. Milkweed Family.

A handsome species with large, deep crimson or purple flowers found in dry fields, roadsides and thickets from New Hampshire to Ontario, Minnesota, Virginia, and Kansas during June, July, and August. The usually single stalk rises from two to four feet high, and it is tough-fibred, finely grooved and very leafy. It is so full of milky juice that it fairly spurts out when a stem or leaf is broken. The long, oval leaf tapers to a point toward the tip, and narrows at the base into a short stem. It is smooth above, and finely downy beneath. The entire margins are sometimes slightly wavy. The veins are wide-spreading, and the midrib is strong. They are arranged in alternate pairs. The divisions of the corolla are oblong in shape and deep purple in colour. The short, broad horn tapers to a sharp tip, which turns acutely toward the centre. The numerous flowers are loosely clustered in rounding terminal heads.

SWAMP MILKWEED

Asclèpias incarnàta. Milkweed Family.

This species is found commonly in and about swamps from July to September and ranges through New Brunswick to Tennessee, Kansas, and Louisiana. The

usually smooth stalk is slender and branched. It is leafy to the top, and grows from two to four feet high. The leaves are long lance-shaped, tapered at the apex and narrowed toward the base, where they are sometimes slightly heart-shaped. The veins are ascending and not spreading as in the preceding species. Neither has this plant an abundance of milky juice. The leaves grow in alternating pairs, and are set on short stout stems. The numerous flowers are arranged in several rather small, loose terminal and flat-topped clusters. They are not large and the corolla is red or rose-purple, rarely white. The lobes are oblong, and the pink or purplish hoods are shorter than the enclosed, incurved horns. The stems of the slender pods are not crooked.

The Hairy Milkweed, *A. pulchra*, is a more northern species with shorter stemmed, broader leaves, and lighter coloured flowers. It is more or less hairy, and the stalk is stout. It ranges from Maine to Minnesota and south to Georgia.

COMMON MILKWEED. SILKWEED

Asclèpias syrìaca. Milkweed Family.

This is undoubtedly the most familiar of the Milkweeds. It is found everywhere in fields and along wood and roadsides during June, July, and August, from New Brunswick and Saskatchewan to North Carolina and Kansas. Its presence is said to be an indication of rich rather than poor soil. The sticky, milky juice of this species is less copious than that of the Purple

Milkweed. It has a faint odour and a sub-acrid taste. The roots have been especially recommended in cases of asthma, but they are probably of very little value as a medicine. The young shoots have been used as a vegetable, and were cooked much after the manner of asparagus or spinach. The stout, round and usually simple stalk rises from three to five feet high. The thick-textured leaf is long-oval in shape, with blunt, rounding ends. The apex of the latter is often tipped with a short, stiff point and the base is sometimes narrowed or again slightly fulled on either side at the short stem. The veinings are widely spreading and the midrib is very prominent. The margin is entire. The upper surface is smooth, and the under side is downy. The colour above is grayish green, and whitish or silvery beneath. The leaves measure from four to nine inches in length. The corolla lobes of the large and fleshy flower vary from green through white, to finally a dull purple, from base to tip, with the latter colour predominating. The numerous flowers are very fragrant. They are set on slender stems that spring from the same point on a short, drooping stalk that grows from the axils of the upper leaves, and they form large, handsome, rounding heads or umbels. In the fall, the rough-coated, satin-lined seed pods are filled with white silky fluff, which is attached to many flat, brownish seeds that overlap each other like so many shingles. At this time they are a familiar sight, and the down has been used for stuffing many a pillow and mattress.

MOCCASIN FLOWER. PINK LADY'S SLIPPER. *Cypripedium acaule*

BOUNCING BET. SOAPWORT. Saponaria officinalis

Children delight to make pretty little plumes, puff-balls or pompons by winding the seed end of ever so many tufts together with thread, and allowing the free ends to spread.

POKE, OR TALL MILKWEED

Asclèpias phytolaccoìdes. Milkweed Family.

This really beautiful plant is one of the most delicately arrayed of its kind. It is not easily confused with any of the other Milkweeds that are likely to be found in common with it, because its lovely flowers are creamy or ivory white, and they generally hang deliberately downward. The usually smooth, simple, leaf stalk is very milky, and grows from three to six feet high. The large, very thin textured leaves are broadly egg-shaped, and are pointed at both ends. They have entire margins and are set on slender stems. The surface is smooth or slightly downy underneath, and the midrib shows prominently. They are arranged in alternate pairs on the stalk and become narrower as they approach the summit. The numerous large flowers form one or more clusters or umbels that hang like fringe, nodding loosely on long, slender stems which droop prettily from a stout support set in the angles of the upper leaves. The corolla lobes are greenish, and the short, broad, white hoods have twin points. The long, white horns have sharp tips that project and curve toward the centre. The green corolla lobes are often stained with purple, and the white crown becomes pinkish. This Milkweed blooms

from June to August in moist copses and woods, from Maine to Minnesota, Georgia, and Arkansas.

FOUR-LEAVED MILKWEED

Asclèpias quadrifòlia. Milkweed Family.

This more dainty and ladylike member of its clan can be distinguished immediately by its leaves, four of which are arranged in opposite pairs, forming a whorl about midway on the slender and rather naked stalk. Only one or two whorls may occur on the stalk which grows not more than a foot or two high, but single pairs of leaves are often found above or even below the whorls. The thin-textured leaves are long-oval or lance-shaped with long, tapering points and slender stems. They are slightly hairy on the underside along the veins, and the margins are usually entire. The underside is also of a lighter shade. The oblong corolla lobes are pale pink, the elliptical-oval hoods are white, and the incurved hook is short and thick. The fragrant flowers are comparatively small, and delicately textured and toned. They are set on slender, hairlike stems, and are less numerous and fewer clustered than most of its kin. It is found in dry woods, thickets, and hills during May, June, and July, from Maine and Ontario to Minnesota, North Carolina, and Arkansas.

GREAT BINDWEED. WILD MORNING GLORY

Convólvulus sèpium. Morning Glory Family.

This large Wild Morning Glory is common everywhere along roadsides and in fields and thickets, where

it twines and trails extensively over the ground or low shrubbery, from June to August. The main stem grows from three to ten feet in length, and is round, leafy, and generally smooth, or sometimes minutely hairy. The slender stemmed leaves are triangular in outline with squared, angular lobes at the base, and are tapering toward the tip. The large, bell-shaped flowers are usually pink, shading to white at the base of the tube, with five tapering white stripes radiating from the centre and extending to the edge of the corolla. Five stamens and a pistil, all white, are set within the tube. The five green calyx parts are nearly enclosed by two large cupped bracts. The solitary flowers are set on the tips of slender stems. They bloom extensively, and show a preference for moist soil, from Nova Scotia to North Carolina, and west to Minnesota, Utah, and Nebraska.

GROUND PINK. MOSS PINK

Phlóx subulàta. Phlox Family.

The thick, evergreen tufts of the Moss Pink, which spread over dry, sandy, or rocky ground and hillsides, forming dense moss-like patches, are fairly smothered with the dark-eyed, pink, purple, or white blossoms from April to June. The slender, creeping, leafy stalk is much branched, and grows only several inches high. The numerous stiff, sharp-pointed, spreading green leaves are very narrow, and are set upon the stem in frequent, whorling clusters. The five spreading, wedge-shaped divisions of the tubular corolla are

notched at the broadened apex. The many flowers are gathered in crowded terminal clusters. This low-growing Pink is found from New York to Florida, and west to Michigan and Kentucky.

MOTHERWORT. COWTHWORT

Leonùrus Cardìaca. Mint Family.

The tall, leafy, and often branched spires of this familiar, old-fashioned, domestic herb of past generations, is commonly found about old dwellings and along roadsides, where it grows from two to five feet in height. The square stem is rather stout, and, together with the foliage, is usually lightly dusted with whitish powder. The branches are straight and ascending. The thin and rather soft leaves are noticeably veined, and are set in close, opposite pairs, which swing out in every direction on slender stems. The leaves are wedge-shaped toward the base, and become divided above the middle into three sharply toothed lobes with the central division much larger and longer than the rest. The lower leaves which are long stemmed are much broader and are deeply cut with rounded, irregularly toothed lobes. Numerous little wreaths of tiny pink, purple, or white flowers are set around the stalk at the angle of each pair of leaves and at close intervals. The tubular corolla is two-lipped. The erect upper lip, which encloses the stamens, is slightly arched and densely covered with white, woolly hairs above. The spreading and mottled lower lip is three-lobed, with the middle one much the largest.

The tube is lined with an oblique ring of hairs. *Leonurus* is Greek, meaning lion's tail, and presumably alludes to the brushy, tail-like branches. Motherwort may be found from June to September, from Nova Scotia to North Carolina, Minnesota and Nebraska. It has become naturalized from Europe.

WILD BERGAMOT

Monárda fistulòsa. Mint Family.

This species, which bears several floral heads, is quite similar to the Oswego Tea. The flowers are cream-coloured, pink or purplish, however, and the plant is found on dry hillsides and in thickets. It is a slender-stemmed, much-branched perennial, growing two or three feet high. The fragrant, slender-stemmed, lance-shaped leaves are toothed and veined, and are frequently heart-shaped at the base. The somewhat flattened flower heads are surrounded with a row of whitish or purplish leafy bracts. The calyx is densely hairy at the throat. The corolla is hairy, especially on the upper lip. The arrangement of the leaves and the manner of this plant's growth is practically covered in the general description of the Oswego Tea. This genera was dedicated to Nicholas Monardes, a Spanish physician and botanist, who published a book, in 1571, containing the earliest pictures of an American plant. According to Thistleton Dyer, there is a notion prevalent in Dorsetshire that a house wherein the plant Bergamot is kept will never be free from

sickness; but happily it refers to an English species, and not to ours. The Wild Bergamot blossoms from June to September, and is found from Maine and Ontario south to the Gulf States, and west to Minnesota and Colorado.

SNAKE HEAD. TURTLE HEAD. COD HEAD. SHELL-FLOWER. BITTER-HERB BALMONY

Chelòne glàbra. Figwort Family.

This dweller of wet situations takes most of its common names from the fancied resemblance of its flowers to the various subjects which it seems to have suggested. It is a rather common and familiar perennial herb, growing from one to three feet high. The leaves are said to be tonic, and to have been used as a remedy for liver complaints. The leafy, hollow stem is sometimes branched, and is erect, smooth, and square, with two opposite sides grooved. The sharply toothed, lance-shaped leaves taper to a long point, and are narrowed at the base. They are set upon the stalk in alternating, opposite pairs, with short stems, and their surface is creased with recurved veins. The large flowers are white, usually tinged with pink, and are closely crowded in a dense terminal cluster. The irregular corolla is broadly tubular and two-lipped. The broad, arched upper lip is creased and notched in the middle. The lower lip is three-lobed at the apex, with the middle lobe smallest. The throat is

filled with woolly hairs. The dark, woolly stamens scarcely peek from beneath the upper arch of the partly gaping lips. The five-parted green calyx is surrounded with broader, leafy bracts. The Turtlehead is found from July to September, and ranges from Newfoundland to Florida, and west to Manitoba and Kansas.

SLENDER GERARDIA

Gerárdia tenuifòlia. Figwort Family.

During September large patches of the irregular bell-shaped flowers of this little Gerardia are found in the grassy growths of dry, open woods and thickets. It is a smooth, slender-stemmed and widely branching annual, growing from six to twenty-four inches high. The spreading branches are sparingly leafed. The alternating leaves are long, very narrow, and almost needle-like, with sharp points, and show a fine midrib. The green, bell-shaped calyx has very short, pointed teeth. The small, tubular flower is light purple or rarely white, and is marked with numerous indistinct spots. The corolla is flattened, and two of the five rounded lobes are smaller than the others, and are curved inward over the pistil and cream-coloured stamens. The inner surface of the two smaller lobes is prettily marked with purple spots. The flowers are set on short, hair-like stems, which spring from the axils of the leaves along the branches. The little pear-shaped buds look like drops of thick, fresh paint, and are very decorative. The Slender Gerardia

ranges commonly from Quebec to Georgia, and west to Ontario, Illinois, and Louisiana. It is dedicated to John Gerarde, the famous herbalist.

TWIN-FLOWER. GROUND VINE

Linnaèa boreàlis. Honeysuckle Family.

A very dainty and delicate little trailing vine, that was an especial favourite of Linnæus, and which was dedicated to him with his sanction. The slender, slightly hairy, and reddish stalk grows from six inches to two feet long. The small, oval, evergreen leaves are rather thick, and their surface is rough and finely creased with numerous veinings. They are indistinctly toothed, and are set alternately along the stalk on short stems. The pretty, small, five-lobed, long, bell-shaped flowers are about half an inch in length and grow in pairs. They blossom at the same time and hang downward, nodding gracefully from the thread-like tips of a fine, upright stem, which rises several inches and forks near the top to accommodate them. They are strongly tinted with purple, becoming white or pinkish at the tips and base. The hairy green calyx has five long, narrow points. There are four stamens, two of which are shorter, and are inserted toward the base of the Covella tube. Occasionally this charming little vine may be found flowering again late in the fall. The exquisite fragrance of the flowers completes the charming qualities with which this darling of the cool, mossy woods and bogs is endowed. It is found

JOE PYE WEED. Eupatorium purpureum

from June to August, from the mountains of Maryland to Labrador, and west through the northern border states and Canada to California, and Alaska. It is also found in northern Europe and Asia.

JOE PYE WEED. TRUMPET WEED. GRAVEL ROOT. TALL, OR PURPLE BONESET. KIDNEY ROOT. QUEEN OF THE MEADOW

Eupatòrium purpùreum. Thistle Family.

During August and September, the tall, swaying heads of Joe Pye are conspicuous in low, wet meadows, and along open streams and swamps where it grows rankly and vigorously. It was named from Joe Pye, an Indian doctor, who gained some notoriety travelling through New England, and who applied this plant in treating cases of typhus fever. The large, stout, leafy stalk grows from three to ten feet high, and branches at the summit. It is usually stained with purple. The large, thin, oval or broad, lance-shaped leaves are arranged in curving whorls of from three to six. They are short-stemmed, long-pointed, rounded-toothed, firmly ribbed and veined, and rough-surfaced. The flowers are of a peculiar shade of dull pink or purple. They have a matted, fuzzy appearance, and are arranged in numerous small groups that form large, dense, and somewhat flat-topped, or elongated terminal clusters. The small, tubular florets have long, projecting, hairy pistils, and the cup in which they are set is of the same colour

as the faintly fragrant flowers. Joe Pye is found from Canada to Florida and Texas.

BURDOCK. COCKLE BUR. BEGGAR'S BUTTON. CUCKOO BUTTON

Árctium mìnus. Thistle Family.

Children delight to gather the shaggy green burs of the Beggar's Button and form them into birds' nests, baskets, dolls, and a various assortment of similar playthings. They well know, too, the bitter taste they leave on the fingers. The Burdock is a large, coarse, bushy, branching biennial, growing from two to four feet high. The large, rough stalk is very leafy, and is round and grooved. The toothless, hollow-stemmed leaves are large, broad, and alternating. They are pointed-oval in shape, more or less wavy, and rather thin and veiny. The lower ones are heart-shaped. The small flower head is composed of numerous silky, tubular florets of varying shades of purple, gathered into soft tufts and set in a rather large, conical green bur, which is thickly covered with many sharp, spreading, long-hooked, and sticky bristles. They are set on short stems in irregular terminal, bunchy clusters. The root and fresh leaves are employed as a remedy in blood and skin disorders, and also for swellings and rheumatism. In Japan the root is known as Gobo, and is a popular vegetable in the country. Burdock is a familiar plant commonly found around neglected buildings, and along fence rows, roadways, and in pastures

throughout our area, flowering in its second year, from July to November.

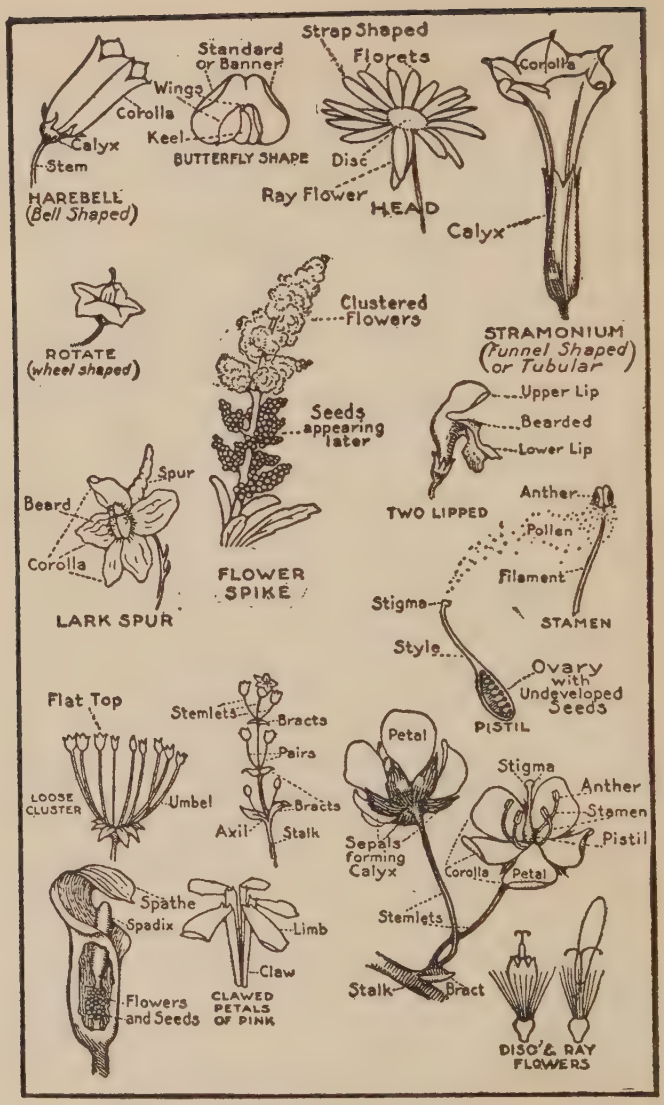
We have also a much taller species, *A. Lappa*, growing from four to ten feet in height. It is not so common, and its range is more restricted. The leaf stems are deeply grooved and not hollow.

And buttercups are coming,
  And scarlet columbine,
And in the sunny meadows
  The dandelions shine.

And just as many daisies
  As their soft hands can hold
The little ones may gather,
  All fair in white and gold.

Here blows the warm red clover;
  There peeps the violet blue;
Oh happy little children!
  God made them all for you.

Celia Thaxter.



FLOWER FORMS

Section III

YELLOW AND ORANGE FLOWERS

GOLDEN CLUB

Oróntium aquáticum. Arum Family.

THE Golden Club is common in shallow water in ponds and swamps, mostly near the coast, during April and May. It is closely allied to the Skunk Cabbage and Jack-in-the-Pulpit, but resembles neither. The long-stemmed leaves and flower stalks manage to keep just above the water, and are often reclining upon its surface, according to its depth. The thick, juicy, smooth-surfaced, long, pointed-oblong leaves, are deep, dull green above, and pale beneath. They are sometimes a foot in length, and are narrowed, or frequently partly furled at the base The parallel ribs are equally apparent. The numerous tiny, flat, bright yellow flowers are from four to six parted and are deeply and closely set upon a thick, pointed club, which terminates the flattened tip of the long, floral stalk. This aquatic plant is found from New England to the Gulf of Mexico. The generic name is said to be that of some plant from the Orontes River, in Syria.

SWEET FLAG. CALAMUS

Ácorus Cálamus. Arum Family.

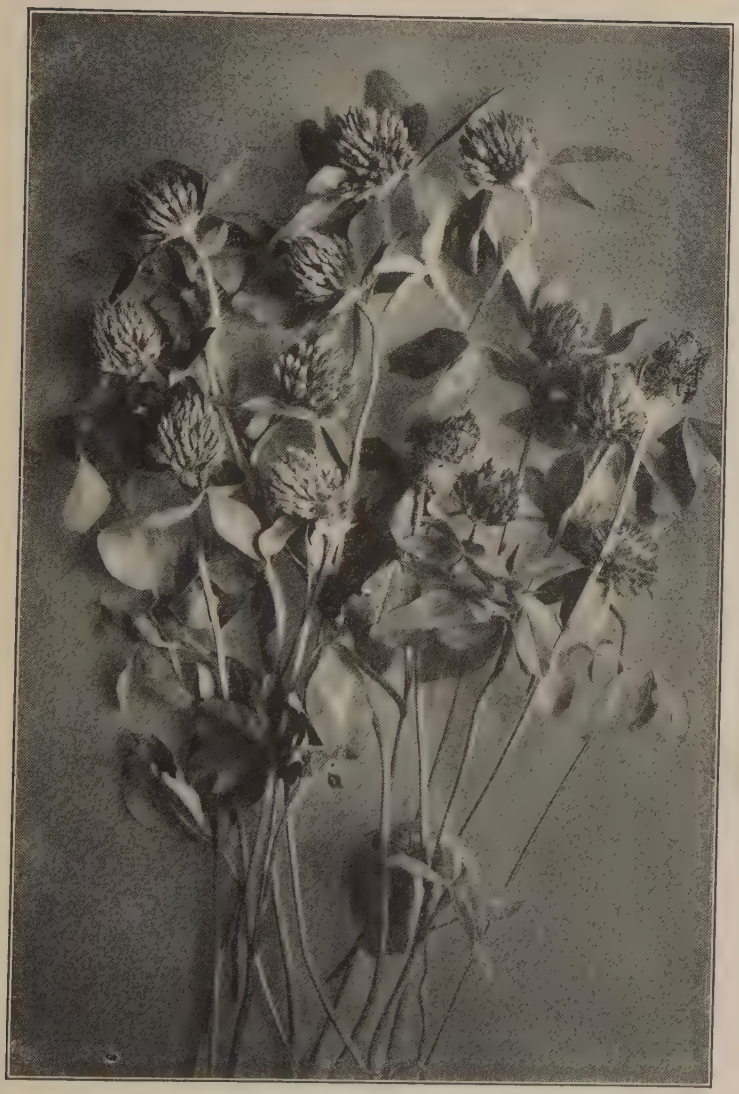
An exceedingly common rush-like herb, with very long, horizontal, branched rootstocks, and rather stiff, sword-shaped, light green leaves, growing in thick

patches along streams and in swamps, and flowering from May to July. The flower stem resembles the leaves, but is larger, and from one side, near the middle, it sends out a thick, fleshy, tapering spike, which is densely crowded with minute, greenish yellow florets. This spike is tender and edible when about half developed. The root which has a strong, aromatic fragrance, is used by country people when dried or candied, as a remedy for dyspepsia, and as a stimulant and tonic for feeble digestion. Calamus appears to have been known to the ancient Babylonians, and also by the Greeks. It is used in India to some extent, and the powdered root is an esteemed insecticide in Ceylon and India. It also produces a volatile oil that is largely used in perfumery. Calamus can always be identified by the fragrance emitted by the roots, and for edible purposes similar roots should be avoided. The interior of the stalk is sweet. It ranges from Nova Scotia to Ontario and Minnesota, south to Kansas and the Gulf of Mexico. Also in Europe and Asia. This species grows from two to six feet high.

PERFOLIATE BELLWORT. STRAW BELL

Uvulària perfoliàta. Lily Family.

The inconspicuous, straw-coloured, bell-shaped flowers of the graceful Bellwort, blossom during May and June in rich, moist woods and thickets. The slender, pale green stalk grows from six to twenty inches high, from a perennial rootstock, and is smooth



RED, or MEADOW CLOVER. Trifolium pratense

SWAMP HONEYSUCKLE. WHITE AZALEA
Rhododendron viscosum

WILD HONEYSUCKLE. PINK AZALEA
Rhododendron nudiflorum

and round. It is forked above the middle, and usually produces from one to three leaves below the fork. The thin, alternating, pointed oblong leaf entirely surrounds the stalk near the rounded base, and looks as if the stalk grew through it, rather than otherwise. This peculiarity is an easy means of identification. They are toned a full green, and are toothless, with an entire margin, and have a creased midrib. The rather large, fragrant, solitary, pale yellow flower hangs, like a pendant, from the ends of the drooping branches, on short stems, and is often partly hidden beneath the overhanging, terminal leaves. It is composed of six narrow, petal-like segments or sepals, which are rough on the inside, and have spreading tips. There are six stamens and a pistil. The generic name is derived from the Latin, *Uvula*, a palate, and alludes to the hanging flowers. The Straw Bell is found from Quebec and Ontario to Florida and Mississippi.

SESSILE-LEAVED BELLWORT. WILD OAT

Oakèsia sessilifòlia. Lily Family.

A pretty and somewhat more common species than the foregoing, flowering at the same time, and having its stemless, pale green, rough-edged, long pointed-oval leaves set in pairs upon the angular stalk, and not pierced by it. It reaches the height of about twelve inches, and bears one or two leaves below the fork. The six petal-like segments of the smaller drooping flowers are less pointed and curved. They are greenish yellow or cream-coloured, and a sharply three-angled

seed pod succeeds them. One or two flowers hang from the end of the branches at first, but as the latter continues to lengthen, they may be found later on, appearing opposite the leaves. This Bellwort is found in woods and thickets from New Brunswick and Ontario to Minnesota, and south to Florida and Arkansas. Dedicated to William Oakes, a New England botanist, who died in 1848.

TURK'S CAP LILY

Lilium superbum. Lily Family.

The Turk's Cap is one of the loveliest and most graceful of our handsomest native wild flowers. It is sometimes confused with the Meadow Lily, but is a later-blooming, and much taller-growing species, with the parts of its widely spreading bells rolled backward until their tips often lap over the base of the flower. Its flowers are usually more richly coloured, and they blossom more profusely. The tall, and very leafy stalk grows from three to eight feet high from a round bulb, which is borne on a short rootstock composed of thick, white, egg-shaped scales. The numerous long, lance-shaped stemless and toothless leaves taper toward either end, and are three-ribbed and smooth on both sides. Usually those on the lower part of the stalk are arranged in whorls of from three to eight, while the upper ones are close and alternating. From one to forty large, beautiful coloured flowers, varying from orange to orange-yellow, or rarely red, are borne on long, slender, spreading terminal stems, from which they

hang and nod with an enticing gesture. The stems usually carry a small green leaflet. The six long, tapering lance-shaped petal parts when deep orange, are variegated with light yellow, especially on the inner side, which has a dash of white with a light green centre at the base. The inside is also spotted with dark purple, the spots, as a rule, occurring on the yellow colouring, and on either side of the green mark within. The six, long, light green stamens are capped with large, rich brown anthers, and are spread conspicuously around the large, club-shaped pistil. They all project bewitchingly beyond the bell of the flower, and add greatly to the charm and attractiveness of this variable Lily. It blossoms from July to August in moist meadows and marshes, from Maine to Ontario and Minnesota, south to North Carolina and Tennessee. It is a less common species than the Meadow Lily, and more majestic and decorative in its habit. It slightly resembles the magnificent Tiger Lily of China and Japan, which sometimes escapes from New England gardens.

MEADOW LILY. FIELD, WILD OR YELLOW LILY

Lilium canadense. Lily Family.

The large handsome bells of the popular Meadow Lily fairly tinkle with the joyous outdoor spirit which ever glorifies the month of June. The smooth, slender, or stout, leafy stalk grows from one to five feet tall, from a bulby rootstock composed of numerous narrow, fleshy, white scales. The stemless and toothless,

oblong or lance-shaped leaves are usually gathered in whorls of from four to ten, which are distributed at regular intervals on the stalk. The uppermost leaves are often alternating. The margins, as well as the veining on the under side, are finely roughened, and they are strongly three-ribbed. From one to sixteen showy flowers spring fountain-like from the summit of the stalk, on long, slender stems, and droop and nod in every direction from the sharply curved ends. They are decidedly bell-like, and their six spreading, pointed, petal-like parts are yellow or orange coloured, and usually deeper toned, and thickly spotted within with dark, reddish brown. The large, rich-brown capped, light green stamens are six in number, and the club-shaped pistil has three lobes. At times some of our swamps, meadows, and low fields are extensively decorated with the lovely flowers of this gorgeous Lily which hang their graceful heads well above the surrounding vegetation. This species is found in blossom during June and July, and ranges from Nova Scotia to Ontario and Minnesota, south to Georgia, Alabama, and Missouri. The Indians made use of the bulbs for thickening meat soups.

YELLOW ADDER'S TONGUE. TROUT LILY DOG'S TOOTH VIOLET. FAWN LILY

Erythrònium americànum. Lily Family.

Where the brook wanders through a partially shaded, open and moist bit of woodland or thicket, there, in the springtime, you will find its bank and the

immediate vicinity literally carpeted with the peculiarly mottled leaves of this beautiful Lily. Here and there the solitary, bright yellow, bell-shaped Lily-like flowers hang downward, pipe-like and nodding from long, slender, upright stems. They have a slight, delicate fragrance, and the half-dozen rich, brown-capped, yellow stamens stand out gracefully from an equal number of recurved petal-like sepals, in striking contrast and pleasing harmony. Inside, near the base, the divisions are sharply spotted with rich chocolate, and on the outside, they are usually faintly tinged with purple. The club-shaped pistil of the rather large perfect flower has its tips or stigmas united. The flowers close at night, and remain partly so on dull or rainy days. They always face toward the sun, and the outer divisions recurve to their fullest extent on brightest and warmest days. Everybody loves the Dog's Tooth Violet. Everybody knows it by this misleading name. Maybe the "Dog's Tooth" part originated from the shape of the flower parts, having something of the outline of the long, pointed, canine teeth of a dog. But it is not a Violet at all. It is a Lily. The shape and hang of the flowers indicate this. If you still doubt it, dig up the plant carefully, roots and all, and you will find ample proof in a deeply seated, plump, smooth, solid, egg-shaped corm, or bulb at the base of the stalk. The bulb is edible, and when roasted was greatly relished as a tit-bit by the Indians. The bulb and leaves are also used as a medicine for producing nausea. This bulb rests in the ground, some

six or eight inches below the surface. The plant is complete with two, flat, fleshy, long, pointed oval, pale green leaves of unequal length. They are smooth and shiny, and are generally marbled with dull reddish or purplish markings. At first, one might think that the stained effect was produced by frost. This mottled effect of the leaves suggests the appearance of a snake's skin, and the pipe-like flower extending therefrom, is supposed to justify the name of Yellow Adder's Tongue. In some localities, where the earliest trout fishing is eagerly sought, this delightful spring beauty is popularly known as the Trout Lily, and its speckled leaves and blossoms are heralded as a signal that another speckled beauty, the brook trout, has appeared. The erect, ear-like appearance of the two leaves, together with their peculiar markings, caused John Burroughs to christen this plant the Fawn Lily. The flowers and leaves begin to wilt almost as soon as they are picked. The former revive nicely when placed in water, but the leaves are slower in recovering the shock. Soon after the flowering season, the leaves begin to fade, and by July scarcely a trace of them is to be seen. This species is found scattered in groups and colonies in abundance from Nova Scotia to Ontario and Minnesota, south to Florida, Missouri and Arkansas, during March, April, and May. Somewhat farther west it is replaced by a similar species with narrower and less mottled leaves, and white or pinkish-white flowers, that are not commonly found eastward. The pistil has three short, spreading tips, or stigmas.

It is known as the White Adder's Tongue, *E. albidum.* This species multiplies by underground offshoots from the base of the corm.

YELLOW CLINTONIA

Clintònia boreàlis. Lily Family.

A handsome Lily of the Valley plant, growing especially common in our more northern woods, where it seeks the cool moisture of the shady evergreens. It was dedicated to DeWitt Clinton, a former governor of New York State. The slender, nearly smooth, and naked flowering stalk rises from six to fifteen inches high, and bears from three to six drooping, greenish yellow, or straw-coloured, bell-shaped blossoms, which are arranged in a loose, terminal cluster on slender, nodding stems. They are formed of six spreading sepals, with six stamens and a pistil. The two to five, usually three, large, thin, glossy dark green leaves are pointed-oval or oblong in shape, and are narrowed into a sheathing base. This plant is probably more familiar to vacationists in the late summer, when the erect, dark blue, globular berries are very conspicuous. It blossoms during May and June, and is found from Newfoundland and Ontario to North Carolina and Minnesota.

INDIAN CUCUMBER ROOT

Medèola virginiàna. Lily Family.

The dark purple berries of this common woodland plant are far more noticeable during August than are the singular, nodding yellow flowers that precede

them. The long, horizontal, club-shaped rootstock which is white, crisp and juicy, and tastes not unlike cucumbers, is said to have been relished by the Indians. It has also been used as a remedy for torpid livers. The slender, unbranched stalk is slightly adorned with a cottony fuzz, and grows from one to two and a half feet in height, in moist woods and thickets. It bears usually two whorls of leaves. The larger whorl consists of from five to nine thin, stemless, oblong, taper-pointed, toothless and three-ribbed leaves, and occurs half-way up the stalk. The other whorl is borne at the top, directly under the flowers, and the smaller leaves, numbering from two to five, are frequently short-stemmed. Plants which bear no flowers have only one whorl of leaves, and that terminates the stalk. From two to nine inconspicuous, spidery flowers are set on slender curving stems that spring from the centre of the upper leaves, and hang usually below them. They have six spreading recurved petal-like parts, six brown-tipped stamens, and a pistil with three very long and curving stigmas. The species ranges from Nova Scotia to Ontario and Minnesota, south to Florida and Tennessee.

CARRION FLOWER

Smilax herbacea. Smilax Family.

The Carrion Flower emits a remarkably putrid odour, so offensive and disagreeable that Thoreau says: "It smells exactly like a dead rat in the wall." Happily, however, this objectionable feature lasts only through the flowering season, and then the ornamental features of

this rather handsome vine should be appreciated. Especially in the fall is it attractive, when the dark fruit clusters contrast so beautifully with its variegated leaves. The tough, round, smooth, green stalk is frequently angled and much-branched. It is thornless, and climbs gracefully in and out, and over and under surrounding vegetation, supporting itself *en route* by means of numerous small and twining tendrils, which spring from the base of the leaves. The large, smooth, sharply pointed, bright green leaves are egg-shaped, heart-shaped, or blunt at the base. They are tough, thin-textured, frequently downy beneath, strongly ribbed and toothless. The arrangement is close and alternating, and they are set on short or long stems. From fifteen to eighty small, rankly scented, yellowish green, six-parted flowers are gathered into a half-round floral cluster, which is borne on a long, slender stem growing from the axils of the leaves. In the fall the flowers are succeeded by a cluster of bluish black berries. The flowers are both staminate and pistilate, and occur on separate plants. The Carrion Flower is common along river banks and moist thickets, where it blossoms from April to June, from New Brunswick to Manitoba and the Dakotas, south to the Gulf States and Nebraska.

YELLOW STAR GRASS

Hypóxis hirsùta. Iris Family.

From May to October our grassy fields and dry, open woods are frequently spangled with the little

yellow starry blossoms of this species. The flower stalks and slender, grass-like leaves, rise from a fibrous rooted, egg-shaped corm. They are more or less hairy, and grow from two to six inches in height. The leaves are distinctly grooved, with a noticeable rib, and are much longer than the flower stalk. The six-parted, petal-like parts of the flowers are bright yellow and waxy within, and three of them, at least, are greenish and hairy without. They spread widely, and show their yellow stamens. Several buds form a loose, terminal cluster, and open one or two at a time. The Yellow Star Grass is found from Maine and Ontario to Assiniboia, Florida and Texas.

SMALL YELLOW LADY'S SLIPPER

Cypripèdium parviflòrum. Orchid Family.

Cinderella's wonderful glass slipper never possessed the charm and comfort suggested by the dainty golden mocassins of this exquisite Orchid. It is a lively, smaller-flowered beauty, resembling the following species in many respects, and is frequently hopelessly confused with it. The lip, or pouch, however, is bright yellow, and more or less marked with purple stripes, spots or blotches. Its flower is delightfully fragrant, and its petals are longer and more twisted. It is also less common, and its range is more extensive than that of its larger sister. The slender, leafy stem grows one to two feet high, and the pointed oval or lance-shaped leaves alternate upon it. The curious, triangular, lid-like anther is

yellow, and is purple-spotted like the pouch. The narrow, curling sepals and petals are sometimes purple or claret-coloured. This species is found in bogs and moist, hilly woodlands from ocean to ocean, and from Canada south along the mountains to Washington, Missouri and Georgia. It possesses the same poisonous properties as the larger species. The roots have a distinct and heavy odour like Valerian, and are used as a general stimulant for nerves and in neuraliga.

LARGE YELLOW LADY'S SLIPPER

Cypripèdium pubéscens. Orchid Family.

This large, striking, purple-striped, yellow-flowered Orchid is an early bloomer, and is found immediately after its lovely pink sister, the Moccasin Flower. It is not at all uncommon, yet enough so to warrant our elation whenever we happen to run across it. This handsome plant is covered with fine hairs, and its leafy stalk rises from one to two feet in height. The alternating oval, pointed leaves are parallel ribbed, and clasp the stalk. The large, showy, pale yellow lip, or pouch, is streaked with purple lines, and near the top it encloses a tuft of white, jointed hairs. The broad, pointed sepals and very long, narrow, twisted and curling side petals, are greenish yellow, streaked with brownish purple. The usually solitary and scentless flower swings from the top of the stalk with an outward gesture, and is found in bogs and moist hilly woods and thickets, from Nova Scotia to Ontario and Minnesota, south to Nebraska, Colorado, Arkansas

and Alabama, from May to July. The roots are used as a nerve tonic, and the odour is rather heavy and disagreeable. The hairs on this species yield an oil that is poisonous.

TUBERCLED ORCHIS. SMALL PALE GREEN ORCHIS

Habenària flàva. Orchid Family.

This common, tiny-flowered and leafy-stemmed Orchid is usually found growing in the same bog with the Ragged Orchis and blooming during June and July. The rather stout stalk grows one or two feet high, and bears several large, alternating, elliptic, or lance-shaped leaves. The greenish yellow flowers are inconspicuous and numerous, and form a slender, clustered terminal spike that bristles with many sharp green bracts. The petals and sepals are somewhat similar in shape. The former are greenish, and the latter greenish yellow in colour. The fringeless, spurred lip is a trifle longer than the other petals. It is broad, with rounded edges, and has a slight notch at the apex, while at the middle of its base appears a single tubercle, or palate. This unattractive Orchid is found in swamps and wet places, from Florida, Louisiana and Missouri, to Minnesota and Ontario.

YELLOW FRINGED ORCHIS

Habenària ciliàris. Orchid Family.

One of the tallest, stoutest, and most frequently found of our most attractive Orchids, blooming during July and August, in wet meadows and along the

borders of moist, open woods. The beautiful orange yellow flowers are closely clustered in a large, rounded, oblong, terminal spike, and are exceedingly handsome and very attractive as the tall, slender, leafy stalk sways its brilliant, fringy torch in the long grasses of late summer. It grows from twelve to thirty inches high, and its long, pointed, lance-shaped leaves pass suddenly into pointed, bract-like leaflets, as they approach the blossoms. The rather large, showy flowers have bluntly pointed, broad oval or almost circular sepals, two of which are ear-like and spreading, while the upper one extends forward, and is hood-like. The petals are much smaller, and generally toothed. The long, drooping, oblong lip is deeply cut into a fine fringe, and is prolonged into a very long, slender, curving spur. The buds resemble the golden balls of a miniature, drum-major's baton. This magnificent Orchid is one of the most interesting of our early autumn wild flowers, and it fairly quickens the pulse to come suddenly upon it for the first time during the season. Personally, I always feel the same tingling sensation as that which I have experienced when finding for the first time, the nests of our rarest birds in remote recesses. The Greek name *Habenaria* signifies Rein Orchis. This group is characterized by its lofty stems and its plumy wands of many flowers. It contains about four hundred species which are distributed throughout the world and of which about forty are found in North America. It also contains some of the larger plants of our native Orchids. The

principal character of the blossom is the very long, slender spur which hangs from under the drooping spreading lip, and the usual variously cut and fringed design of the latter. The Yellow Fringed Orchis ranges from New England to Ontario and Michigan, and south to the Gulf States.

RAGGED ORCHIS

Habenària lácera. Orchid Family.

The greenish yellow flowers of the Ragged Orchis are "all tattered and torn," like the man in the nursery rhyme

> "That kissed the maiden all forlorn,
> That milked the cow with the crumpled horn."

It is a common and inconspicuous Orchid, differing distinctly from all others by its remarkable fringed lip, which is so fantastically slit and slashed that it is comparatively difficult to describe. The rather slender, round, smooth stalk grows one or two feet high, and bears several firm, alternating, lance-shaped, yellow-green leaves, which become very much smaller and bract-like as they approach the top. The numerous flowers are gathered into a loose, terminal, misty green or feathery spike. The sepals are pointed oval, and the upper one is a little the broadest. The petals are oblong, and the long lip is divided into three spreading parts, each of which is hopelessly cut into an irregular thread-like fringe. The curving spur is very long and slender. The Ragged Orchis blossoms during June and July, in bogs, swamps, and wet

woods, from Nova Scotia to Minnesota, and south to Georgia, Alabama, and Missouri.

FIELD, OR SHEEP SORREL. SOUR GRASS

Rùmex Acetoséllа. Buckwheat Family.

In the springtime the children delight to chew the acid foliage of this familiar and so-called Sour Grass. My mouth actually waters now, as I recall the sensation produced by the tartness of these green leaves, which I, too, used to nibble. The young leaves make a palatable salad and pot green. It grows in dry fields and on hillsides throughout the entire length and breadth of the land, and is found from May to September. Several slender, leafy, branching stems rise from a tuft of leaves. The rootstock is woody and creeping. The smooth, thick, juicy, long arrow-shaped leaves have two pointed lobes flaring from the base. Their margins are toothless, and they are set on long, grooved stems. The very tiny, six-parted, bright greenish yellow flowers soon turn to reddish or dull crimson, and are gathered in long, slim, curving, feathery spikes which terminate the slender branches. Sour Grass is exceeding common, and is found in all sorts of locations, most everywhere.

LARGE YELLOW POND LILY. COW LILY. SPATTER-DOCK

Nymphaèa ádvena. Water Lily Family.

The Yellow Pond Lily grows rankest in shallow water along the margins of slow-moving streams and stagnant ponds, where great patches of the large

coarse, bright green leaves grow above the surface of the water so thickly that it is almost impossible, sometimes, to push a canoe or rowboat through them. Muddy bottoms and sunny exposures cause them to grow in greatest profusion, from April to September. The flower is stiff and waxy, and has the appearance of being a stunted blossom, which had become deformed before it had a chance to mature. Many a stranger from the city has scoffed the idea of wet feet in order to secure one of these golden cups, only to cast it aside with a keen sense of disgust and disappointment. The Spatter-dock encroaches persistently on artificial ponds, which have been made by constructing dams across small streams, causing the water to back up and flood the shallow land adjacent thereto, for the purpose of harvesting ice during the winter. It often happens that a considerable area of a pond becomes choked with the leaves of this plant, and unless checked in some way, they would cause the loss of many tons of marketable ice. To overcome this difficulty, the owners usually open the locks and release the water during midsummer, allowing the ponds to run dry for several weeks. While this operation does not always kill the roots, it does affect the foliage, which causes the trouble, and it is left to the mercy of the sun. In the early fall the floodgates are closed, and the rising water insures a clear field of ice. Anyone not familiar with the construction of the Spatter-dock's blossom would naturally describe it as a yellow flower, having six large, yellow petals, and a great, big pistil,

TRAILING ARBUTUS. MAYFLOWER. *Epigaea repens*

SHOOTING STAR. AMERICAN COWSLIP. Dodecatheon Meadia

surrounded with many stamens. But let us see what it really is. It is a large flower, all right, having six large, concave *sepals* — not petals — which form an orange-shaped cup, measuring from one and one-half to three and one-half inches in diameter. Three of these petal-like sepals are slightly larger than the others, and form the inner row of an alternate arrangement with the three smaller ones which support them. They are bright yellow in colour, shading to a light green at their base, and occasionally they are stained with purple. Immediately inside this yellow-lined bowl are the real petals, forming a ring around the thick, compound pistil. They are stamen-like, fleshy, oblong, and numerous, and are comparatively short, less than half an inch in length. The many yellow stamens are arranged in five, six, or seven rows directly around the pistil, from which they radiate, and recurving prettily, fill the cup. The flat top of the great stigma or pistil, which is compounded or composed of many carpels or simple pistils, is orange-red or yellow, and is strikingly decorated with a starlike design, having from twelve to twenty-four rays. The flowers are not possessed of a pleasing odour, and this accounts for much of its unattractiveness. In England they are called Brandy Bottles, a name which knowing ones claim is suggested by its odour, and which others attribute to the shape of its seed cases. They are found either floating or erected above the water, in common with its foliage. The large, smooth, shining leaves are tough and leathery, and

measure from six to twelve inches in length. They are deeply cleft or heart-shaped at the base, and ovate in general, with a rounded tip and toothless margins. The long, smooth, thick, light green stems of the leaves and flowers rise to the surface of the water from the thick horizontal rootstock which is anchored in the mud. The leaf stems are sometimes flattened on one side. The roots are said to have been used by the Indians as food. This Pond Lily ranges from New Brunswick and Nova Scotia, south to Florida and westward to the Rocky Mountains, Texas and Utah.

AMERICAN LOTUS. NELUMBO. WATER CHINQUAPIN, OR WANKAPIN

Nelúmbo lùtea. Water Lily Family.

This beautiful aquatic is found in scattered localities from Ontario to Florida, and westward, during July and August. The large, showy fragrant flower is from four to ten inches broad, pale yellow in colour, and slightly resembling a double tulip, with numerous petals and stamens inserted on the calyx. The concave and pointed petals are arranged in several rows, and they graduate into stamens. The large, round, slightly hollowed leaves generally rise high above the water, and are often two feet broad. They assume a peculiar bluish green as the season advances, and are strongly ribbed, smooth above and hairy beneath. The thick, stout stem has several large air canals, and the rootstock is thick and nearly horizontal. The seed case reminds one of the sprink-

ling nozzle of a watering pot. It is held erect, and its surface is indented with little pockets containing the small, round, nut-like seeds. The root tubers and seeds are edible. This plant is especially common in the Central States, near the Great Lakes.

THE BUTTERCUPS

Ranunculàceae. Crowfoot Family.

Show me a man who, when a boy, did not hold a Buttercup under his own or another's chin that he might, by the reflection of its brilliant yellow cup, determine to what degree his subject "liked butter," and I will show you a man who has not experienced a full share of the joyous thrills of a genuine, glorious childhood. The custom is an old and popular one, and comes of a

> "Knowledge never learned of schools
> Of the wild bee's morning chase,
> Of the wild flower's time and place."

The month of June finds the Buttercups at their best, and in the greatest profusion of bloom. The snappy, yellow cups fairly scintillate with the sun's radiance, and as the breezes tilt them, its golden glory is flashed and re-flashed with dazzling brightness, lending a charm and cheerfulness to the grassy fields and roadsides where they sparkle, that defies description. You have probably noticed in pasture lands, when the grass is smooth and closely cropped by grazing cattle, that it was dotted here and there with small tufts of tall grass and foliage from which spread the

glittering, golden flowers of the Buttercup, as if they had been purposely placed there for ornamental and decorative effect. Perhaps they were, but if so, why not the Clover or Forget-me-not, or any of a dozen and one other equally pleasing flowers? Why was the Buttercup alone selected. I will tell you why. It is because, as the gossips say, the Crowfoot clan has a family "skeleton in its closet." Some of its kind, the Aconite and Larkspur, have developed certain highly poisonous qualities, and the Buttercup, though happily free from such deadly contamination, still betrays its kinship by the very acrid and caustic juice which it conceals. For this reason, horses and cattle intentionally avoid the Buttercups, and that is why they stand out boldly and fearlessly in every pasture, bidding a pretty defiance to their four-footed enemies who might otherwise ruthlessly obliterate them. Many farmers destroy the Crowfoot with marked vengeance, and look upon their coming hay crop with more or less concern and depreciation, if their timothy is brightened with these brilliant blossoms. Their fears should cease, however, when they learn that the Buttercup loses its objectionable qualities with the drying or curing process of hay-making, and then it is relished as a fodder.

SMALL-FLOWERED, OR KIDNEY-LEAVED CROWFOOT

Ranúnculus abortìvus. Crowfoot Family.

Commonly found along shady hillsides and woodland streams during April, May, and June, from

Labrador and Nova Scotia to Manitoba, and south to Florida, Arkansas, and Colorado, this biennial species grows from one-half to two feet high. The bright green lower leaves are smooth, thick and rounded or somewhat kidney-shaped. The small flowers have prominent heads, and drooping, pale yellow petals, which are shorter than the reflexed calyx.

HOOKED CROWFOOT

Ranùnculus recurvàtus. Crowfoot Family.

This is an annual species with very acrid and blistering juice. It grows throughout the same general range as the small-leaved species, and is about the same height. It is found from June to August. It is common in wet woodlands and ditches, and may be easily distinguished by its large, hooked seed cases, which are grouped in a conspicuous cluster. The stalk is thick and hollow, the leaves are thickish, and the pale flowers are small, with inconspicuous petals.

EARLY, OR TUFTED BUTTERCUP

Ranùnculus fasciculàris. Crowfoot Family.

A common, early, fine, silky-haired woodland species, growing from six to twelve inches high, and bearing deep yellow, narrow-petalled flowers, measuring nearly an inch broad. The flower often has six or seven petals. It rises from a cluster of thickened fleshy-fibred roots, and is found during April and May in open woods from Ontario and New

England to North Carolina and westward to Texas and Manitoba. The dark green, long-stemmed leaves are deeply lobed with three, four, or five divisions. This is one of the very first of the Buttercups to blossom in the spring time.

SWAMP, OR MARSH BUTTERCUP

Ranùnculus septentrionàlis. Crowfoot Family.

This is the second Buttercup to blossom in the spring, and follows closely upon the Bulbous. It is tall and branching, sometimes reclining and taking root at the joints. It grows from one to three feet high, and the thick, hollow stem is generally smooth and finely grooved. It is found in low, swampy, or moist, shady places, from New Brunswick and Manitoba, south to Georgia and Kentucky, from April to July. The mottled leaves are large and thrice divided, with the divisions again cleft into three much-notched and pointed lobes. They are set on long foot stems. The flower is an inch broad, and the petals do not overlap like those of the Tall Crowfoot.

HISPID BUTTERCUP

Ranùnculus hìspidus. Crowfoot Family.

The earliest flowering Buttercup in the vicinity of New York. Its young leaves are very hairy. The stems are sometimes spreading, and together with their bright yellow flowers, this species is generally larger, but fewer leaved than the Bristly Crowfoot. The thin leaves are divided three, four, or five times,

and the divisions are again sharply cleft and lobed. They are set on long stems. This Buttercup rises from a cluster of stout, fibrous roots, and is found in moist places and upland woods, from Georgia and Arkansas northward, from March to May.

CREEPING BUTTERCUP

Ranùnculus rèpens. Crowfoot Family.

This species spreads by runners and forms large patches along roadsides and in low fields, from Nova Scotia to Virginia, and westward, during May, June, and July. The plants are generally hairy. The thrice divided leaves are set on long stems, and are often spotted or marked with white. The flowers are nearly an inch broad.

BRISTLY BUTTERCUP

Ranùnculus pennsylvánicus. Crowfoot Family.

This unlovely Buttercup grows commonly from one to two feet high in wet, open places, from Nova Scotia to Georgia, and west to the Rocky Mountains and British Columbia, during June, July and August. The flowers have a prominent thimble-shaped, head formed of numerous green pistils, surrounded with small petals of the same length as the sepals. The very stout, hollow stalk is stiff and bristly with long hairs. The numerous leaves are thin, medium green in colour, and are thrice divided into three deeply cleft divisions. When first observed, the flowers appear as though the petals had dropped away, and

only the seed head remained, but closer examination will reveal the small, rounded yellow petals.

BULBOUS BUTTERCUP. KING, OR GOLD CUP

Ranùnculus bulbòsus. Crowfoot Family.

This Buttercup occurs commonly from May to July, throughout some of the Northeastern States, in fields and along roadsides. It is easily identified by its bulbous root, which, from its energy-storing nature, enables its flower to appear first of its kind in the spring. The plant resembles the Tall Crowfoot in a general way, but it is more hairy, and does not attain so large a size. The flowers are large, and the sepals are bent downward, often close to the stem. The deep, glossy yellow petals, usually number five, but often appear in sixes or sevens, and the flower measures over an inch in diameter. It is naturalized from Europe.

COMMON MEADOW, OR TALL BUTTERCUP. TALL CROWFOOT. BLISTER FLOWERS. BUTTER FLOWERS

Ranùnculus àcris. Crowfoot Family.

This familiar species is found commonly throughout the Northern States and Canada, from May to September. It is a perennial, naturalized from Europe. The finely ribbed and branching stalk grows two or three feet high from fibrous roots. It is erect, and generally hairy, hollow and stout. The conspicuous flower is an inch broad, with five rather wide and rounding bright yellow petals. The inner surface is exceedingly glossy, like enamel, while the outer is dull and paler in colour. The numerous

yellow stamens are grouped delightfully around the many small green pistils, forming the centre. Five narrow, pointed sepals open widely and are slightly curved and hairy, and pale yellow in colour. The flowers expand considerably after the small, round, green buds open, and when fully matured some of them possess a delicate, though scarcely perceptible fragrance. The basal leaves have long, narrow, grooved stems, and form pretty, rounded and slightly spreading tufts near the ground. They are divided from three to seven times, and each division is again cleft into numerous narrow parts, and sharply pointed lobes. The veins show plainly, and the surface is downy and soft to the touch. Their dark green colour becomes lighter on the under side. The fewer upper leaves are simply three-parted, and clasp the stalk where it branches. It is common practice afield to pluck a flower and carry it in the mouth; but with the Buttercups this should be avoided, as its acrid juice causes blisters to appear on the lips and tongue. For this reason it is known in some localities as the Blister Flower. The generic name is derived from the Latin, *rana*, a small frog, and was applied by Pliny because some of the Crowfoots grew where the frogs abound.

MARSH MARIGOLD. COWSLIP. MEADOW GOWAN

Cáltha palústris. Crowfoot Family.

There is good reason to believe that our common Marsh Marigold is of the same sort as that which was

immortalized by the Christians during the Middle Ages, who dedicated this flower to Mary, the Mother of Jesus. The name was originally Mary's Gold, and Shakespeare refers to it in Cymbeline, where the musicians sing:

> "Hearke, hearke, the Lark at Heaven's gate sings, and
> Phœbus gins arise,
> His steeds to water at those Springs on chalic'd Flowers that lyes:
> And winking Mary-buds begin to ope their golden eyes:
> With everything that pretty is, my Lady sweet, arise.
> Arise, arise."

It is just as well to know, however, that the names Marigold and Cowslip are more commonly and truthfully applied to altogether different species. Marigolds, as almost everyone knows, are the favourite, old-fashioned, coarse-smelling, rough-and-ready garden flowers which delighted our grandmothers, while the Cowslips are, in reality, a species of Primrose. Do you wonder what 's in a name? The scientific name, *Caltha*, means cup, and *palus*, a marsh — hence Marsh Cup, a name which has some real significance, and is aptly applied. The Marsh Marigolds flourish along the wet borders of streams and marshes, where the roots are more or less in the water and the ground is springy and wet. Early in April the beautiful, bright yellow cups of the flowers reflect the glory of the sun from amid a thrifty, bushy clump of crisp, glossy green leaves. They blossom in great profusion, and their attractive flowers are gathered in the spring, tied in bunches, and sold along the streets of our larger cities as Cowslips. The entire plant, root,

stalk, leaf and flower, surely indicates the perfection of a vigorous, healthy growth, which they enjoy, and were it less snappy and effective, it might be called coarse, rather than delicate. The large, showy, saucer-shaped flower measures an inch or an inch and a half across, and resembles a good-sized Buttercup as much as anything. Like the Hepaticas, the Marsh Marigolds do not possess true petals; but the broad oval sepals, from five to ten in number, serve in their stead. The glossy, delicate-textured flowers emit a slight odour, and have numerous stamens and pistils. The stout, smooth, hollow stalk is often branched at the top where the flowers are borne during April, May, and June, and it grows a foot or two in height. The smooth, rich, bright green leaves are generally rounded and heart-shaped at the base, and are broader than long. The lower ones have long, thick stems, rising directly from the root. The upper ones are usually stemless, and are set directly on the stalk, particularly where it branches. The leaves are used as a spring vegetable, and, together with the stalks and buds, are boiled and eaten like spinach, to which it is said to be superior. The Marsh Marigolds range from New Brunswick to the Rocky Mountains, and south to Iowa and South Carolina.

COMMON BARBERRY. PEPPERIDGE BUSH

Bérberis vulgàris. Barberry Family.

The Barberry becomes conspicuous during September and October, when its beautiful pendant clusters

of brilliant scarlet berries begin to brighten hilly pastures and wayside thickets. Gardeners take advantage of this extremely ornamental shrub, and use it extensively for making hedges and beautifying home grounds. Its decorative value may be better appreciated when it is considered that the attractive berries remain throughout the winter. The fruit is sour and puckery, but not altogether unpleasant to the taste, and when cooked, they make a beautifully coloured syrup or jelly of pleasing flavour. Indeed, the store of preserved viands on the swing shelf in the cellar or topmost shelf in the upstairs closet of any old New England farm house is not replete until the busy housewife makes her old-fashioned Barberry jam. Then all hands look forward to the coming Thanksgiving dinner with the satisfaction of knowing that there surely will be the making of Barberry tarts — tarts that outclass the cranberry sort, too. And if on the day following the feast, a body should happen to feel feverish or indisposed, the same Barberry usually helped to adjust the effects of too much turkey and pumpkin pie, for it is both food and medicine. The juice of the berries has a cooling effect upon fever patients, and it is used as a gentle tonic, and was formerly administered in cases of jaundice. The roots and inner bark are sometimes used to make a yellow dye, and also for tanning purposes. Malic acid is made from the berries. The Barberry is severely condemned by wheat growers because it is believed to harbour a mildew or fungus (*Aecidium*)

which develops into a summer-stage or form (*Uredo*), known as a wheat rust. At one time, Massachusetts farmers were obliged by a state law to destroy all the Barberry bushes found growing near their wheat-fields. This did not necessarily check the fungus, as it is known to have propagated and spread for years thereafter. The Pepperidge Bush is a native of Europe and Asia, and has been introduced into this country, where it has become naturalized in the Eastern and Middle States, and sparingly in Canada and the West. It prospers in dry, gravelly soil in waste places, and grows six or eight feet high, in a healthy, robust way of its own. Its many spreading branches are gracefully arched and drooping at the ends. The smooth gray twigs are armed with numerous sharp, three-pronged spines or thorns. The thorns of the Barberry really represent leaves. This is proven by the fact that they produce a leaf bud in their axil. If a new season's growth is examined, various graduations from the fully developed spiny leaf at the base, to the reduced branching spine toward the tip, will be found. Generally, thorns are stunted, woody branches, starting from the axils of the leaves, but they should not be confused with the thorns of the Wild Rose or Blackberry, which are merely growths on the bark, and if the bark is peeled off, the thorns adhere to it. The Barberry's small yellow flowers have a disagreeable odour. They have six sepals, six pistils, and six stamens. The latter are curiously arranged, and form little inverted arches between the thick,

green pistil and each cupped petal, reminding one of the arrangement of the stamens of the Mountain Laurel. They are irritable, and sensitive to a high degree, and if touched with a pin during favourable weather they will snap back automatically toward the pistil with the activity of a spring mouse-trap, scattering a tiny cloud of pollen. The flowers are borne in gracefully drooping clusters, which hang from the leaf joints. The thick, rounded oval leaves have a smooth surface and firm texture, and they grow from one to two inches long. They are set on short stems in little rosette-like groups of three to five, which spring from the axils of the three-pronged spines or thorns. The colour is light bluish green, and their edges are protected with numerous sharp bristly points. The flowering season is May and June. The berry is oblong in shape, and contains one or two hard seeds. The scientific name is of Arabic origin.

AMERICAN BARBERRY

Bérberis canadénsis. Barberry Family.

This is a smaller and less common species, growing in the woods on the mountains of Virginia to Georgia, along the Alleghanies, and in Missouri. It is not found in Canada, as its specific name might cause one to think. It grows from one to six feet high, and is readily distinguished from the Common Barberry by its dark, reddish brown branches. The leaves are not so spiny, and the bristles are more

separated. The flowers are smaller clustered, and it consequently bears fewer berries, which are oval, rather than oblong. The petals are distinctly notched, and are arranged in a double row, or nearly so.

GREATER CELANDINE. SWALLOW-WORT TETTER-WORT

Chelidònium màjus. Poppy Family.

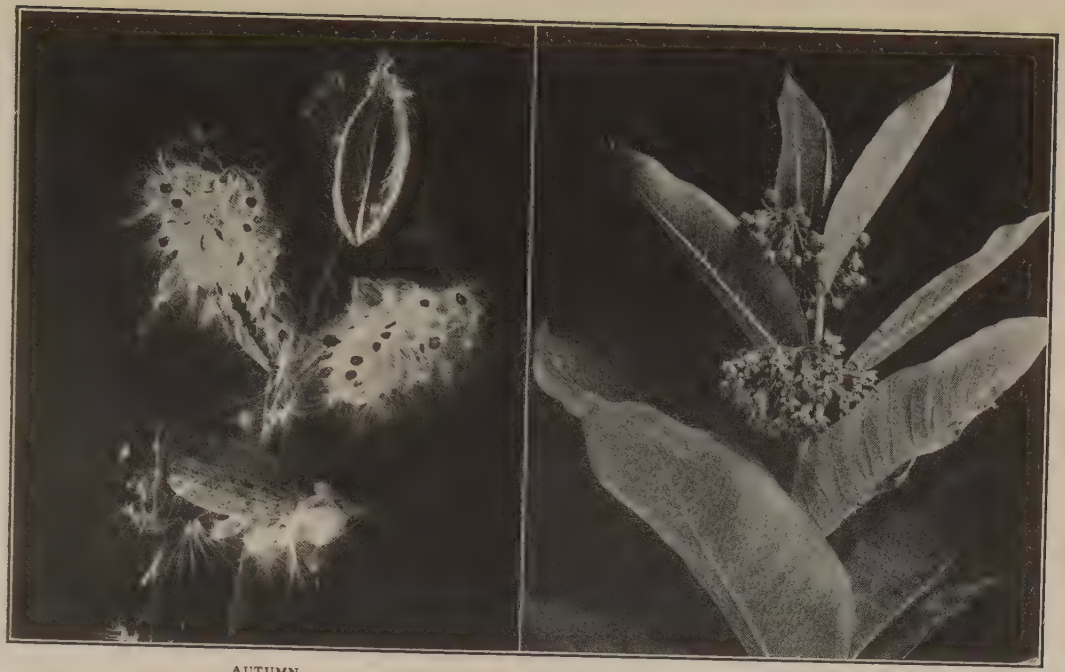
The Celandine is a loose branching herb, sprawled commonly along roadsides and waste places, in fields, and about old buildings. It has been naturalized from Europe, and is often confused with the Black Mustard by those who are not familiar with the flowers. The light green stalk has a whitish bloom, and grows from one to two feet high. It is sparingly hairy, weak and brittle, and is filled with a copious orange-coloured, acrid juice that stains everything it touches, and which is said to be poisonous. Small boys paint warts with it in the hope of removing them, and for the same effect, their parents have used the irritant juice on their corns. The pretty little odourless flowers are half an inch or more broad, and are borne in small, loose clusters on slender stems. The four slightly curved, spreading, oval petals are pure yellow and lustreless. The prominent, slender, green pistil is surrounded with numerous pretty yellow stamens, with yellow anthers. The buds are nodding, and the two yellowish sepals fall as the flower opens. The thin, loosely textured, yellowish green leaf is not unattractive. It is compound, and deeply cleft

into five or more, generally oval leaflets, which are arranged alternately, and have their margins irregularly scalloped. The under surface has a whitish bloom, and is strongly ribbed and veined, the veination showing through on the upper side. They set gracefully on short, weak, hairy stems. The seed pod is long and slender, and often measures two inches in length. It is smooth and two-parted, and splits upward from the bottom when matured. The Celandine blossoms from April to September throughout the Eastern States. The name is derived from the Greek *Chelidon*, a swallow, and was used by Dioscorides, because, it is said, the flowers appeared in the spring when the swallows arrived, and perished in the fall when these birds departed. For this reason it is also called Swallow-wort.

GOLDEN CORYDALIS

Corýdalis aúrea. Fumitory Family.

This bright yellow-flowered Corydalis blossoms earlier than the Pink species, and is found along rocky woodland banks and in recent clearings from Quebec to Mackenzie, and south to Oregon, Arizona, Texas, Missouri, Wisconsin, and Pennsylvania. It is commonly low and spreading. The leaves are mostly short-stemmed, and are finely cut and divided, with the leaflets more wedge-shaped or broader than those of the latter species. The conspicuously spurred and nearly horizontal flowers are about half an inch long. They are golden yellow in colour, and the outer petals are



AUTUMN SUMMER

COMMON MILKWEED. Asclepias syriaca

TURTLEHEAD. Chelone glabra

ridged on the back. The seed pods are curved and spreading, and not erect and straight, like those of its pink sister. Corydalis is from an ancient Greek word, *Korydalos*, a lark, and alludes to the spur of the flower as resembling that of the lark. It is found from March to May.

WHITE MUSTARD

Brássica álba. Mustard Family.

The light brown seeds of the White Mustard are extensively used like those of the Black Mustard, but they are not so pungent, and are often mixed with them, on account of their milder nature. The plant is quite similar in many respects. It is covered, more or less, with stiff, spreading hairs, and grows only one or two feet high. The large, yellow flowers are nearly twice the size of the Black species, and the stems are rather stout and spreading. The circular, bristly seed pods are somewhat spreading, with a long, flat beak, and are narrowed between the seeds. The White Mustard ranges about the same as the Black Mustard.

CHARLOCK. WILD MUSTARD. FIELD KALE

Brássica arvênsis. Mustard Family.

This common and annoying plant was introduced into this country from Europe, and is becoming widely distributed as a weed in grain fields and waste margins about cultivated lands, where progressive farmers attack it with an everlasting determination to

suppress it. It grows from one to two feet high, and branches at the top. It is covered with numerous stiff, scattered hairs. The plant is coarse in structure, and is rather scrawly in appearance. The alternating leaves are similar to those of the Black Mustard, but they are not so much divided. They are rough to the touch, coarse and prominently ribbed and veined, and often their edges are notched and wavy. The flowers are a trifle longer than the Black species, and are more sparse. The sepals spread as the flower expands. The pods are usually smooth, but knotty.

BLACK MUSTARD

Brássica nìgra. Mustard Family.

There is a strong likelihood that the tiny seed of this very plant is identical with the Mustard seed of the Saviour's parable, in which He likened it unto the Kingdom of Heaven. The Mustard was extensively cultivated in Palestine for fodder, and from Asia and Europe it was introduced into our country, where it has spread from one end of it to the other. Surely, from its persistent spreading nature, the seed is symbolic of His divine command: "Go ye into all the world and preach the gospel to every creature." The very small, dark brown seed is a most important commercial product. It furnishes one of the most popular table condiments, as well as one of the best known household applications for common physical ailments. The use of hot Mustard foot-baths for colds and chills, and of the homely, blistering Mustard plaster for the

relief of every pain is only too well known in every family. The oil of Mustard, made from the seeds, is intensely pungent, and is used for making liniments and soap. When used as fodder, the plant is harvested before the seeds mature. The Black Mustard is common throughout our country from June to November, in fields, roadsides, and waste places. Its presence is a familiar one about abandoned farm buildings and weed-grown foundations, marking the ravages and desolation caused by fire and decay. It is conspicuously at home in the vicinity of public ash dumps and in neglected gardens. While it is extensively cultivated in Europe, it is looked upon by farmers in this country as a most prolific and troublesome pest. It grows erect from two to seven feet high, and branches widely. The lower leaves are slender-stemmed and deeply cut into two or three pairs of irregular parts, and balanced on the end with a single large lobe. The edges are variously toothed. The shorter-stemmed upper leaves are lance-shaped, and often smooth-edged. The leaves are loose-textured, and on the underside they are hairy. They are set on the stalk at the base of the branches. The flower has four bright yellow petals, arranged like an oblong cross — the cross sign "X" of multiplication, which is one of the chief characteristics of all of the flowers of the Mustard family, and which the Latin name, *Cruciferae*, signifies. The flowers are less than half an inch broad. The delicate, rounded petals are narrowed at the base, and are spread toward the apex. The greenish

yellow calyx has four narrow divisions. The green pistil is tipped with yellow, and there are four yellow stamens. The flowers are gathered toward the end of the stalk on short stems, forming a loose, golden sceptre. They are rapidly succeeded by short, narrow, flattened, four-angled seed pods, which are pressed toward the stem, and are tipped with a short, slender beak. *Brassia* is the Latin name for Cabbage.

YELLOW ROCKET. BITTER, WINTER, YELLOW OR ROCKET CRESS

Barbarèa vulgàris. Mustard Family.

The Yellow Rocket is one of the first of the yellow flowered Mustards to blossom in the spring. It is found in waste places in fields and along roadsides and meadows, where there is sufficient moisture, and the bright sunshine can reflect from its floral spikes and shiny leaves throughout the day. The single, thick green stalk rises a foot or even two feet in height. It is smooth, strong, and angular, with each of its several branching stems terminating with a cluster of yellow flowers. The lower leaves are lyrate or lyre-shaped, being cut into usually five parts. Four of these parts are set in pairs, and are considerably smaller than the large, rounded odd one which is balanced opposite the base of the upper pair of divisions. These large leaves are set on slender, short stems that seem to clasp the stalk with a small, flaring edge. They also form a tuft about the base of the stalk. They are of a rich, shiny green colour. The smaller parts are

irregularly oval or ovate, with the edges mostly entire. The upper ones usually clasp the stalk, and are much smaller. The larger leaves are four or five inches long, and are used as a spring salad, for which purpose they are sometimes cultivated. The bright yellow flowers are typical of all the Mustards in structure and shape. The six stamens are tipped with yellow, and the calyx becomes yellow as the flower matures. The lower flowers open first, and are immediately succeeded by the narrow seed pod, while the top of the cluster is closely spiked with the short, narrow, yellow, peg-like buds. Herb of St. Barbarea is an ancient name having to do with the dedication of this flower. It is found in blossom from April to June, from Labrador to southern New York and Virginia, and locally in the interior. Also on the Pacific coast. The plant is naturalized from Europe.

SILVERY, OR HOARY CINQUEFOIL

Potentilla argentea. Rose Family.

The charm of this little Cinquefoil lies in the silvery lining of dark green, and often tufted foliage. Its slender, leafy, branching and reddish stalk grows from a few inches to a foot in height, and is covered with a silky, whitish down. All of the leaves, excepting those topmost, are short-stemmed. The five, narrow, spreading leaflets composing the compound leaf, are deeply cut, and the edge is slightly curved backward. The large, five-petalled, yellow flower has numerous stamens, and the green calyx parts are

nearly as long as the petals and is covered with fine, matted white hairs. The flowers are borne on short stems, in small, terminal groups. It is found from May to September, in dry soil, from Nova Scotia to Ontario and Dakota, south to the District of Columbia, Indiana, and Kansas.

SHRUBBY CINQUEFOIL. PRAIRIE WEED

Potentílla fruticòsa. Rose Family.

This very leafy, much branched Cinquefoil grows from six inches to four feet high, and, on account of its rapid and persistent growth, it has roused the ire of farmers, particularly in the New England States, where it has been severely condemned as a most troublesome weed. The tough, shreddy barked stem is stained with brown. The leaf has from five to seven narrow, oblong, silky-surfaced and crowded leaflets, and they approach nearer to the shape of the fingers than those of any of the other Cinquefoils. They are thick-textured, and the toothless edges are slightly curled under. They are whiter on the under side. The large, five-petalled, bright yellow flowers are densely grouped on slender stems, in terminal, leafy flat-topped clusters, or sometimes they are solitary. The numerous stamens are tipped with darker coloured anthers. This plant is found from June to September in swamps or moist, rocky places, in Labrador and Greenland, to Alaska, south to New Jersey, Illinois, Minnesota, and in the Rocky Mountains to Arizona, where

it prospers in dry, sandy soils, and in the Sierra Nevadas to California. Also in northern Europe and Asia.

FIVE-FINGER. WILD STRAWBERRY

Potentilla canadénsis. Rose Family.

This common Cinquefoil is very frequently mistaken for a yellow-flowered Wild Strawberry, owing to a fancied resemblance of its leaves and flowers. It is well to remember, however, that the Cinquefoil has a five-parted leaf, while the Strawberry leaf is three parted. The leaf stems of the former are very smooth, and those of the latter are hairy. It spreads its numerous long, slender runners, which often root at the tip, over the ground in every direction from a leafy tuft. There are several medical qualities attributed to this species. The pretty decorative leaf has five thin, coarsely toothed, strongly veined leaflets. They are oblong in shape, and narrowed toward the base. The leaves are of a lighter shade on the under side, and are set on long, smooth stems rising from the root or in little shorter-stemmed groups along the runners, at some little distance apart. The slender-stemmed, solitary flower has five broad-oval, yellow petals and numerous stamens. The petals are notched at the apex, and the hairy green calyx is exposed between them. The many green pistils form a dense little head in the centre. The five-parted calyx is closely supported with five similar and alternating leafy parts that give it a ten-parted appearance. This plant is exceedingly abundant in dry fields, hillsides, and

roadways from Quebec to Georgia, Minnesota, and the Indian Territory, from April to August. *Potentilla* is derived from *potens* meaning powerful, and alludes to the medical properties attributed to some of the members of this group.

TALL HAIRY AGRIMONY

Agrimònia gryposépala. Rose Family.

"How dear to this heart are the scenes of my childhood,
When fond recollection presents them to view."

Agrimony? Yes, that's one of the herbs our grandmothers gathered every fall, and which held a prominent place in both the pantry and medicine closet in every old homestead. The farm hands used it for healing cuts and bruises, and it was also utilized as an additional flavouring for tea, for which it was even substituted. The Common Agrimony of Europe was a much overrated cure-all, and it is not unlikely that many of its popular virtues have been applied to our Agrimony, which, however, is quite a distinct plant. The hairy green stalk grows about three or four feet high. The large, spreading, compound leaf has usually five to seven thin, hairy and toothed leaflets. They are many veined, elliptical, or broadly oblong in shape, and are alternated upon their long clasping stems, with rudimentary leaflets. The small flower has five yellow petals and many orange-tipped stamens. They are densely arranged in a long, slender, curving terminal spike. The leaf, when crushed, emits a spicy odour. Agrimony is a common

plant, and is found in blossom from June to August, in woods and thickets from New Brunswick, North Carolina, and California.

WILD, OR AMERICAN SENNA

Cássia marilándica. Pea Family.

Senna was first used as medicine by the Arabians, and the leaves of this species are regularly gathered in this country, and used as a substitute for the imported. The nearly smooth, light green, slightly branched stalk grows from three to eight feet high, from a perennial root. From twelve to twenty oblong or lance shaped leaflets set in opposite pairs, on a slender stem from the large compound leaf. The base of the stem is guarded with a slender, club-shaped gland. The toothless leaflets are rather yellowish green in colour, and lighter on the under side. They have a fine, smooth surface, and are firm-textured. They are blunt or rounded at the apex, and are tipped with a tiny point, which terminates the midrib. They are somewhat sensitive when touched, and droop when roughly handled. The numerous, loosely constructed short-stemmed, golden-yellow flowers are clustered in the axils of the upper leaves. They are very showy, and three of the five curved petals are set upright and near together, while the other two spread downward. Ten unequal, dark brown capped stamens are of the same colour as the petals, and, together with the prominent yellowish green calyx, add greatly to the attractiveness of the blossom. The species is

common in swamps and wet soil, often along roadsides, during July and August, from New England to Florida, and west to Michigan, Nebraska, and Louisiana.

PARTRIDGE PEA. WILD SENSITIVE PLANT

Cássia níctitans. Pea Family.

The singular foliage of this common annual herb is sensitive to the touch, and if roughly handled, or threshed with the foot, the numerous leaflets close together after the fashion of a fan, or remotely suggesting the operation of the shutters of a blind. They also close at night, and are thus said to "sleep." This leafy plant is small and branching, and grows only from six to fifteen inches high, in dry fields and sandy wastes, where it often forms large patches. The alternating leaves are compounded of from twelve to forty-four blunt pointed and narrow-oblong leaflets, which are arranged in opposite pairs. The small, short-stemmed flowers have five spreading yellow petals and are borne in clusters of twos or threes in the axils of the leaves. They have five stamens, and the fruit matures in a small, hairy pod. This species is found from July to October, from Maine to Georgia, and west to Indiana, Kansas, and Texas.

WILD INDIGO. YELLOW, OR INDIAN BROOM. HORSEFLY-WEED

Baptísia tinctòria. Pea Family.

The very small, Clover-like leaves and bright yellow, butterfly-shaped flowers of this attractive, branching

plant are easily distinguished wherever it abounds as the Wild Indigo. A blue colouring matter has been made from this plant and used as a substitute for Indigo, but it is of a very poor quality. The root is valuable as a medicine in malarial fevers. It is also a stimulant and an antiseptic, and is used for healing purposes. In some localities the very young tender shoots are used as greens, like those of the Pokeweed, but if eaten when too far advanced, serious results are likely to follow. Farmers, especially throughout Maryland and Virginia, have great faith in this plant, and bunches of it are fastened about the harness of their horses to keep away flies. It grows from two to four feet high, and is very leafy. The foliage turns black in drying. The short-stemmed flowers have a light green calyx, and are loosely and sparingly arranged along the ends of the numerous branches. The foliage is of a dark grayish green. Wild Indigo blossoms in dry soil from June to September, and ranges from Maine to Minnesota, Florida and Louisiana.

YELLOW, OR HOP CLOVER

Trifolium agrarium. Pea Family.

A pretty and very interesting yellow-flowered annual Clover, coming to us originally from Europe. The smooth, or slightly hairy erect or ascending stalk is very slender and leafy, and grows from six to eighteen inches in height. It is generally found along roadsides and in sandy fields, but my personal experience has found them in infrequent, isolated patches, along

sparse thickets separating open woodland and fields. where the land was sloping and a little rocky. The three little leaflets of the compound leaf are shaped like the blades of miniature canoe paddles, with the rounding outer end indented or nicked. They are almost stemless, and as they ascend the lengthening stalk, they become a little larger and longer. They are thin textured, and the smooth surface is finely marked with feather veinings. Their margins are minutely scalloped by the tips of the veins, which extend to the edges and form tiny teeth. The slender thread of a stem upon which they are set, is guarded at its base with a pair of narrow pointed, clasping wings that are united with the stem centrally for half their length. The pleasing golden yellow flowering head is oval or oblong, and is densely crowded with very small florets, arranged alternately like scales. They are set on little stems held in the axil of the leaf. The florets are delicately fluted with the finest imaginable feather veins, and they open circularly from the lower tier, upward. As they mature, they turn downward like those of the Hop Vine, and become dry and husky, and retain a light golden brown colour. Several stalks spring from each root part, and they often form large, loose, widely spreading, brilliant green groups. Hop Clover is found from Nova Scotia to Virginia, west to western New York, Ontario, and Iowa, from May to September. The leaves of the Clovers have a family trait of drooping or closing together at night, as if to "sleep." The two

lateral leaflets are drawn toward each other, and the third closes against their edges.

YELLOW MELILOT. YELLOW SWEET CLOVER

Melilòtus officinàlis. Pea Family.

About all that has been said of the White Sweet Clover applies in a general way to this species. The principal difference, of course, is the yellow flowers. If anything, this member of the family is rather more bushy toward the ground. The branches are widely spreading, and the plant flowers more lowly than the white species. It possesses the same sweet-scented properties, and the leaflets are rounded at the tip and not nicked. The parts of the corolla are nearly the same length, while those in the white flowering species have one of the parts — the standard — much longer than the other parts, which are known as the wings and keel. The seed pods of the Yellow Melilot are prominently cross-ribbed. Old English names for this plant are Balsam Flowers, Heart's Clover, King's Crown, and Heartwort. It ranges throughout the same territory as its white kinsman, and seems to be more common along the coast. At night two of the three leaflets close together, face to face, and the third one closes against them.

BLACK MEDIC. BLACKSEED. HOP CLOVER. BLACK TREFOIL

Medicàgo lupulìna. Pea Family.

A small, downy annual having a remote resemblance to the Yellow Clover. Its slender, twisted stalk

is so weak, that it is often prone to spread rather helplessly along the ground, in a somewhat scrawly fashion. It often grows a foot or more in length, and branches near the root. The trifoliate leaves are arranged quite like those of the yellow species, but the leaflets are very much more egg-shaped toward the tip, and the indentation is replaced with a minute spike. The bright yellow flower heads are very small, and are gathered in oval clusters, and are set on short, slender stems, which spring from the axils of the leaves, both terminally and along the stalk. They are composed of numerous delicate little florets that are soon followed by many curiously curled and strongly veined, green, kidney-shaped pods, each of which contains a solitary seed that turns almost black as it ripens. The green heads of the seed cases are easily mistaken for flower buds, but it should be remembered that the flowers are, as a rule, always beyond them, toward the end of the stalk. The Black Medic is widely distributed in fields and waste places everywhere, from March to December.

YELLOW WOODSORREL. LADY'S SORREL

Óxalis strícta. Wood Sorrel Family.

Children delight to eat the leaves of this very common Sorrel, which is found from one end of the United States to the other. They often call it Sour Grass, because its agreeable sour taste has a flavour, they fancy, not unlike that of the Red Sorrel, *Rumex acetosa.* These leaves are useful as a remedy for certain affec-

tions of the skin, when eaten in a fresh state. The smooth, leafy stalk is branched and spreading, and grows about six inches high. The thin Clover-like leaf is composed of three short, broad heart-shaped leaflets with their points united at the tip of their long, slender stem. They are pale green in colour, and droop and fold together at night. They are also very sensitive, and close if roughly handled. The fragrant, bright golden yellow flowers open in the sunlight, and close at sundown. They are arranged in small groups at the head of the stalk, and are set on long stems that grow from the axils of the leaf stems. The five, small spreading petals are very thin, and are supported by a five-parted green calyx. The Lady's Sorrel blossoms from April to October, in woods and fields, or along roadsides and about gardens everywhere. Naturalized from Europe.

JEWEL-WEED. BALSAM. SNAPWEED. SPOTTED TOUCH-ME-NOT. SILVER-LEAF

Impàtiens bifloòra. Touch-me-not Family.

How in the world did they ever happen to call this pretty twinkling cup of a flower Jewel-weed? Well, just take a quiet snoop through any old family photo-album, that used to serve as the chief implement of torture to entertain "company" when our fathers and mothers were boys and girls. Turn to Aunt or Cousin So-and-So's likeness, any one of them, and note the great dangling earrings and pendant necklace, and you will soon grasp the suggestion that probably

created this particular one of the several common names applied to the Jewel-weed. There may be other original sources, but I cannot think of any more kindred, whenever I stop to admire these curious flowers. It is also true that the leaves hold the dew and rain in glistening drops, but as diamond jewellery did not burden the country folks, who called the wild flowers familiarly by name, it seems safe to accept the old album's explanations, and let it go at that.

The Jewel-weed grows in rank, tropical and luxuriant profusion along water courses and about ponds, showing partiality, however, to shaded portions thereof. The smooth, hollow stem is ribbed and angular, translucent and juicy, and grows from two to five feet high. The large, broad, oval leaf alternates upon the stalk. It has a tapering tip, and a coarsely toothed margin. The texture is thin and the surface is smooth. Above, they are dull green, and underneath whitish. The veins show on the surface, and the stem is tinged with red. The singular flower is curiously arranged. The sepals and petals are of the same general colour, and the divisions of the calyx and corolla are extremely difficult to distinguish and describe in simple language. One of the sepals has developed into a conspicuous, horizontal, orange-yellow cornucopia, which tapers to a very slender recurved hook. Three other parts are prominently displayed — one as a hood, and the others, which are twice cleft, twist and flare outward and downward at the sides of the cup. They are thickly speckled with reddish brown dots, which

MEADOW LILY. Lilium canadense

become less noticeable on the lips and hood. The flowers dangle on slender stems and are extremely perishable, and wilt hopelessly when picked. As their flowering season advances, the plants develop self-fertilizing flower buds, which never open — after the manner described under certain of the Violets. The seed pods are very sensitive, and snap inside out upon the slightest provocation, and scatter the seeds to the four winds. For this reason the plant is called Touch-me-not. It may be found from July to October, and ranges from Nova Scotia to Oregon and Alaska, and south to Florida and Missouri.

Pale Touch-me-not, *I pallida*, is a larger and stouter species, similar to the foregoing, and is more common northward. The flowers are pale yellow, sparingly spotted with red, or occasionally they are spotless. The pouch is broader, and the slightly hooked spur is much shorter. This species is found from July to September, and ranges from Quebec to Oregon, and south to Georgia and Kansas.

ST. JOHN'S-WORT

Hyperìcum perforàtum. St. John's-wort Family.

The common St. John's-wort comes to us from Europe credited with many virtues, but you could never induce a practical farmer to see anything in it but an obnoxious yellow peril—a vampire weed, self-commissioned to exhaust his soil. The ancients however, who were ever bent on making the best of earthly matters, held it in high repute, as a medicine

plant. They believed that the dew which accumulated upon this plant during the night preceding St. John's Day, the twenty-fourth of July, possessed peculiar qualities that would preserve failing eyesight. Parts of the plant furnished them with a family cure-all for various bodily ailments, but it was most highly esteemed as a remedy for wounds and bruises, a purpose for which it is still being used. A preparation formerly called "balm of the warrior's wound" is made by reducing the tops to a pulp in olive oil. When crushed the leaves have an agreeable odour, somewhat like balsam. The juice is acrid, and has a bitter taste. In rural England and Germany windows and doors were decorated with St. John's-wort on the eve of St. John's Day, with the supposition that it would prevent the entrance of evil spirits. German women wore it in an amulet about their necks, and in Scotland it was carried about in the pockets as a guard against witchcraft. In Europe there is a popular notion that its presence averts destruction by lightning. The smooth, slender and much branched, leafy stalk rises from one to two feet in height, and has many barren shoots at its base. The thin-textured, oblong or linear leaves have a rounding point, and are arranged in opposite pairs. The edges are entire, and the under surface is often spotted with tiny black specks. Between the conspicuous ribbings, the texture is thickly dotted with very fine specks that, when held to the light, show transparently, exactly as if they had been pricked with a needle point. The light green calyx has four

lance-shaped sepals. The bright deep yellow flowers are frequently an inch broad. The five petals are usually oblique or contorted, and are finely notched along one side to the tip, in a singular manner. Their surface is more or less covered with tiny black specks, particularly along the margins. Numerous yellow stamens radiate from the three-pronged, light green pistil, in three sets. The flowers are grouped in several or many open terminal clusters, and they continue to blossom throughout the season. When they first open they are very showy and attractive, but as they fade, the petals wither to a rusty brown. They do not drop off, and consequently lend an unsightly appearance to the otherwise beautiful flowers, with which they are freely mingled. St. John's-wort is common in fields and waste places from June to September, but is less common in the South. It is also native to Asia.

LONG-BRANCHED FROSTWEED. FROSTWORT. CANADIAN ROCK ROSE

Helianthemum canadense. Rock Rose Family.

The study of wild flowers would become a very dull and monotonous subject indeed, if it were not for the continual panorama of interesting changes that it presents when comparing the characters and habits of one species with those of another, or even of the peculiarities of the same species at different seasons of the year. The Rock Rose, for example, has two sets of flowers, and a description of its flowers made when they first appear would compare ridiculously with a

description taken from its flowers a month or two later. That is to say, if anyone who is familiar only with its flowers during May and another one who is familiar with them only as they occur during September, should happen to compare notes, each would believe that the other was describing an altogether different species, so far as the flowers were concerned. The first flowers of the Rock Rose blossom during May, June, and July, and they are known as primary, or petaliferous flowers. They are clear, bright yellow in colour, very showy, delicate in texture, and measure an inch in diameter. They have five large, wedge-shaped petals, which are rounded at the top and pointed at the base, and give the corolla the outline of a hextagon. They are crumpled in the bud, and lap each other when expanded. The numerous orange-tipped stamens are usually gathered together in a singular manner on one side of the pistil, and are pressed back flat against the slightly cupped petals. The large, hairy, green calyx has three large and two small divisions — another peculiarity. The flower is solitary, rarely two blossoming at the same time and it resembles somewhat the flowers of the Primrose. It opens but once, and then only in the bright sunshine, lasting but a few hours, and perishing over night. It is delicately constructed, and the petals often drop when the flower is picked. A second crop of flowers occurs during August and September, and is known as secondary or apetalous. These flowers are very small and entirely different from the first ones, and they

are borne in clusters at the axils of the leaves. They rarely possess petals, but they do produce a few seeds, and have from three to ten stamens. The calyx is hairy, like the stalk, and the lower side of the leaves. The long, narrow, oblong leaves are set alternately and almost directly on the stalk. Their surface is rough, the midrib is strong, and the edges are slightly curled. Their colour is dark green above and paler and whitish beneath. The erect, slightly branching and woody stalk grows two feet or less in height. It is leafy, and is covered with fine, whitish hairs. This plant is found in fields where the soil is dry, rocky and sandy, from Maine to Indiana, and Wisconsin; south to North Carolina and Kentucky. The Latin name is from the Greek, *helios*, the sun, and *anthemon*, a flower. Frostweed is a popular name given to this plant because of its peculiar habit of accumulating frost crystals of snowy whiteness late in the fall, which bursts the bark near the base of the stem and flares out in weird, feathery fantasy, at various angles and degrees of formation.

ROUND-LEAVED, OR EARLY YELLOW VIOLET

Viola rotundifolia. Violet Family.

Much less conspicuous, and consequently not so widely known as the larger Downy Yellow species, the Round-leaved Violet is generally the first of the Violets to appear in blossom. Snuggled beneath the litter of fallen leaves in the seclusion of cool, hilly woods where the ground is moist, but well drained and

shaded, this charming little aristocrat of violetdom makes its home. When the warmth of the earliest April showers has dissolved the frost crystals about their roots, and while the belated, cold, damp-laden winds are yet contesting the supremacy of the bright, ever-warming sunshine, the pale yellow flowers bear silent witness to the conflict. And so William Cullen Bryant found it:

> "When beechen buds begin to swell,
> And woods the bluebirds's warble know,
> The yellow violet's modest bell
> Peeps from the last year's leaves below."

Occasionally I have found the earliest flowers of the Round-leaved Violet only after brushing aside the loose blanket of bleached oak-leaves, which hid them from sight. Their flower and leaf stems are rather short, and the blossoms seem to be contented with a sheltered chink between the fallen leaves, without forcing their way above them, as they do later in the season. During the spring months, while in flower, the plant is quite small and without an abundance of foliage. The early leaves measure from one-half to two inches broad, but they continue to expand, until by midsummer they have increased in size to three or four inches, and form a pretty rosette, flattened against the ground, or very near it. The matured leaf is rounded, with a short cleft between two lobes, forming a heart-shaped structure. The upper surface is smooth, very shiny, and dark green in colour. The under surface is lighter in colour, and the general

texture is fine. The edges are slightly scalloped. They are borne on short stems, springing directly from the root. The pale, yellow flower is comparatively small, and has a very short spur. The side petals are bearded, and are finely veined with purple. The flowers hang singly on shortened, slender leafless stems. The thick rootstock sends out runners during July, which bear inconspicuous buds or flowers that never open. They are self-fertilizing, and the seeds ripen within the recurved bud. The Round-leaved Violet ranges throughout the cooler portions from Labrador to Minnesota, and southward to the higher parts of North Carolina.

DOWNY YELLOW VIOLET

Viola pubéscens. Violet Family

Scattered about in dry, airy, particularly hilly or stony woodland, where the sun's rays play at hide and seek with its flitting shadows, during April and May, the cheerful, bright, golden yellow blossoms of the Downy Yellow Violet appear, like lingering flecks of molten sunshine, entangled among its fuzzy stems and leaves. This species is the commonest and best known of the Yellow Violets. It has a sprightly, upright and spirited air about it, and is the "Slim Jim" of its family, for Violets, as a rule, being of the well-regulated sort in domestic matters, usually grow in neatly grouped tufts. The Downy Yellow Violet grows from five or six inches to a foot and a half in height, averaging perhaps considerably less than a foot.

Its single light green, hairy stalk is comparatively stout, and is ofttimes branching above, with the lower part leafless and bare. The large, velvety green leaves are very broadly heart-shaped, and before they become fully matured, their up-curved lobes at the short stem give them the form of a pointed scoop. The under surface is of a lighter shade, and the ribs and veins show prominently. The edges are either entire or slightly toothed. After the flowering period, a few leaves rise direct from the base of the stalk, on long, grooved, hairy stems. The single flowers and their slender stems are relatively small. The two upper pairs of the bright golden yellow petals are rounding, and uniform in size. They are faintly marked with purple lines, and when fully developed, often recurve toward the hooked stem, while the short, lower petal is notched, has stronger markings, and is slightly curved in the opposite direction. This last petal is also set at an acute angle with the lateral ones. The spur is short, and the sepals are oblong and pointed. The flower stem springs from the fork of the widely spreading leaf stems, the angles of which are guarded with a pair of short, pointed, leaf-like bracts. This Violet ranges from Quebec to Manitoba, and South Dakota, southward to Georgia and Iowa.

SMOOTH YELLOW VIOLET

Viola scabriúscula. Violet Family

This species might be confused with the Downy Yellow Violet at first sight. In fact, it was formerly

considered a mere variety of the latter. Its distinguishing features, however, are at once sufficiently prominent to remove any doubt as to its identity. It prefers moist situations, and is generally found in blossom before the Downy Yellow Violet. The basal leaves are usually present during the flowering season The leaves are inclined to be more pointed and often sharply toothed. The flowers are light yellow and the spur is very short. Several stems may be found growing together, and taken in all, it is a slightly smaller plant. This species grows in woods and thickets during April and May, and its range extends from Nova Scotia to Nebraska, and south to Georgia and Florida.

EVENING PRIMROSE. NIGHT WILLOW-HERB

Oenothèra biénnis. Evening Primrose Family.

The Evening Primrose is commonly found in dry, open fields, and along roadways everywhere east of the Rocky Mountains, from June to October. The large, bright yellow flowers open in the evening, and after exhaling their fragrance for the benefit of the night-flying moths, they close the following day, and, after hanging withered for a day or two longer, drop away. Long before the potato was universally cultivated the fleshy root of this plant was used as a table vegetable. Years ago a strong decoction of this plant was highly esteemed for skin affections, and more recently a drug extracted therefrom has been commended in cases of asthma and in whooping-cough. Primrose ointment has been used for relieving itching

and skin eruptions among infants. The rather stout, leafy, branching or simply hairy stalk rises from one to nine feet. The strongly ribbed, lance-shaped, alternating leaf tapers toward either end, and has an obscurely toothed margin. The lower ones are short-stemmed, and the upper ones are seated upon the stalk. Both leaf and stalk are often stained with purple. The flower has four flaring, heart-shaped petals, and eight long, golden-tipped, and spreading stamens. The four long, pale yellow sepals curve backward around the exceedingly long green calyx tube. The large green seed case is grooved and sticky. The flower buds are closely gathered in a terminal arrangement, and open only one or two at a time. As the flowering season nears the end, the blossoms seem to remain open much longer during the day, and this is attributed to the failing light of the autumn sun.

COMMON SUNDROPS

Oenothèra fruticòsa. Evening Primrose Family.

A common day-flowering perennial, similar to the Evening Primrose, growing from one to three feet high, and usually branched. The sparingly toothed oblong or lance-shaped leaves are either clasping or short-stemmed. The hairy stalk and the closely set alternating leaves are frequently stained with purple. The large yellow flowers are grouped in leafy terminal spikes. The four long, heart-shaped petals are thin-textured and delicately veined. The long yellow stamens spread from the centre, and the buds start

from the axils of the topmost leaves. The seed case is strongly ribbed and winged. This plant is found from June to August in dry, sandy soils from Nova Scotia to Georgia, west to Minnesota and Louisiana. During the winter and early spring, the beautiful leaf clusters of the Primrose are remarkable for their wonderful symmetric arrangement, and as William Hamilton Gibson has said, "are a perfect pattern for the modeller, the sculptor, decorator, or wood-carver."

EARLY, OR GOLDEN MEADOW PARSNIP. GOLDEN ALEXANDERS

Zizia aúrea. Parsley Family.

The flat-topped, yellow-flowered clusters of the Early Meadow Parsnip sway just above the grassy crests in fields and meadows, along roadside and swamp land from April to June. It is one of the earliest flowering of the Parsley Family. The hollow, juicy, upright stalk, which grows from one to two and a half feet in height, is smooth, sparingly branched, and is finely grooved. It is often tinged with red, and when bruised or broken emits an aromatic fragrance not unlike parsley or fresh varnish. The leaves, which are sparingly intervalled, have two, or usually three, lance-shaped leaflets with slender, tapering tips and sharply toothed margins. They are smooth-surfaced and thin-textured. The lower leaves have long stems, while those of the upper ones are flat and shorter. The tiny flower has five yellow petals which are curved toward the prominent stamen.

They are gathered into many little separated clusters that in turn are grouped into a broad, open, flat-topped and radiating floral disk or umbel. It is common almost everywhere from New Brunswick to Ontario, South Dakota, Florida, and Texas.

WILD PARSNIP. MADNEP. TANK

Pastinàca satìva. Parsley Family.

The generic name of this common Parsnip is derived from the latin *pastus*, meaning food, and alludes to the edible qualities of the fleshy roots, which, according to Pliny, were cultivated along the Rhine before the Christian era, and imported by the Roman Emperor, Tiberius, and used as a food. The Wild Parsnip is a tall, widely branching, long and thick-rooted biennial herb, raising its tough, grooved, and usually smooth stalk from two to five feet in height. The alternating, compound, dark green leaf has several pairs of pointed oval or oblong leaflets, which are more or less lobed and cut, and sharply toothed. They are rather thin-textured and smooth-surfaced. The upper leaves clasp the stalk, and the lower ones are long-stemmed. The numerous tiny yellow flowers are gathered in many small clusters that are finally grouped on slender stems in several, large, terminal, flat-topped disks, similar to, but much larger than the Early or Meadow Parsnip. The seeds are thin, flat and shiny, and the stalk is so very tough that it is broken only with great effort, if indeed it is to be broken at all. This Parsnip is very common along roadsides

and open waste places, everywhere, from June to September, throughout the United States and Canada, where it has become naturalized from Europe.

FOUR-LEAVED, OR WHORLED LOOSESTRIFE. CROSSWORT

Lysimàchia quadrifòlia. Primrose Family.

Fairies' Fountain would have been a more deserving and appropriate name for this pretty floral cascade. During a shower this allusion becomes more real than fancied, as the attractive leaves are arranged in whorls or wheels, one above the other, at regular intervals along the slender, upright stalk, just like basins in a fountain, that catch the drip from tip to base. The trembling yellow flowers, which spring gracefully from the centre of the green leafy basins, are sprayed in every direction, and when the plant sways in the sunshine, they glitter and sparkle as they play over the curving leafy rims. The Four-leaved Loosestrife is found from June to August, in moist, open woodlands and thickets. The light green stalk is often faintly hairy, and grows from one to three feet in height. The toothless, yellow-green leaves are narrowly oblong, or lance-shaped, and are pointed at both ends. Their surface is obscurely covered with tiny, oblong black marks which follow the direction of the veinings. The midrib is noticeable and the texture is thin. They are arranged in circles of from three to seven, but commonly in fours, about the stalk, and as they approach the top they gradually diminish

in size. The small, delicate flower has from five to seven long-pointed and spreading lobes. They are bright yellow, edged with red, and frequently and finely streaked, or sparingly spotted. The five erect yellowish stamens are clustered around the pistil and project beyond the corolla. They are tipped with purple, and there is a tiny circle of this colour at their base. The tips of the five-parted green calyx show between the corolla lobes. The flowers are set on hair-like stems, one of which starts from the axil of each leaf. This species is rather common from Georgia and Illinois to Canada.

BULB-BEARING LOOSESTRIFE

Lysimàchia terréstris. Primrose Family.

The long, slender yellow wands of this Loosestrife brighten our swamps and moist thickets from July to September. The smooth, hollow leafy stalk is usually branched near the top, and grows less than two feet in height. The long, narrow, lance-shaped leaves are set in opposite, alternating pairs, and are thickly covered with tiny, black, oblong dots. They are thin, smooth and toothless. After flowering, this plant often bears long bulblets or curiously modified branches, in the axils of the leaves. The yellow starlike flowers are very similar to those of the Four-leaved species, but the divisions are more deeply cut and narrower, and the slender tips are slightly curling. They are conspicuously lined and marked with reddish dashes, and at the base of each division there

are two reddish dots. The flowers are gathered on short, hairlike stems, in a long, terminal spike, and open gradually as they ascend the stalk. Long ago, so it is said, sprays of Loosestrife were placed on the yoke of unruly oxen, with the belief that it would quiet and pacify them. This species ranges from Georgia and Arkansas, northward into Canada.

BUTTERFLY-WEED. PLEURISY-ROOT. WIND-ROOT. ORANGE-ROOT

Asclèpias tuberòsa. Milkweed Family.

A vivid, penetrating flash of brightest glowing orange suddenly greets us as we cross the grassy fields during July, and we stop immediately to express our admiration for this most stunning and handsome of the Milkweeds. It is always so refreshing and invigorating, that we never seem to tire of its presence. It is a lively bloomer from June to September, and loves the surroundings of dry fields and pastures where it abounds, to the everlasting joy of hosts of butterflies and flying insects that are invariably associated with it. Surely, it should have been called the Butterflies' Mecca! This magnificent herb has several medicinal virtues attributed to it. It was held in high esteem by the Indians, who extracted a crude, sugar-like substance from the flowers. Its roots supplied their medicine man with material to allay various physical ailments, and their squaws used the young green pods extensively for food, cooking them in a sort of meat stew. The Delaware Indians are said to have

even cultivated it. The fuzzy shoots are cut when a few inches long, and are boiled and eaten after the manner of asparagus. It has also long been used in domestic practice, where it has served in cases of disordered digestion, and afflictions of the lungs; to relieve pains in the chest, and to assist in producing perspiration and easier breathing. The root is collected annually in the fall, and sold to druggists. The stout, roughish-hairy, purple-stained stalk, which is very leafy, grows from one to two feet high, and branches only to accommodate the flowers. It lacks the abundant supply of milky juice so common in other Milkweeds. The alternating leaves are oblong or lance-shaped, taper to a rather blunt point, and narrow into a rounded or heart-shaped base where they clasp the stalk, or are set on short stems. The midrib is prominent, and the margin is toothless. The numerous small and long, bright orange or rarely yellow flowers are set on slender, light green stems, arranged in one or several loose, flat-topped, terminal clusters, or umbels. The seed pods are more slender than those of the common Milkweed, and only one or two are produced at a time. They have a curiously kinked stem. This Milkweed is found from Maine and Ontario to Minnesota, Florida, Texas, and Arizona.

CITRONELLA. STONE-ROOT. HORSE-BALM

Collinsònia canadénsis. Mint Family.

This strong-scented, aromatic, perennial grows in rich, moist woods, and bears lemon-scented, light

YELLOW ADDER'S TONGUE. Erythronium americanum

GREAT MULLEIN
Verbascum Thapsus

EVENING PRIMROSE
Oenothera biennis

yellow flowers, which blossom from July to October. The familiar oil of Citronella, used so extensively for scenting soaps and as a mosquito lotion, is produced by an altogether different species, which grows in Ceylon. The Horse-balm has a stout, branching stem and grows from two to five feet tall. The coarsely toothed, pointed-oval or oblong leaves are either narrowed or heart-shaped at the base, and the lower ones are larger and slender stemmed. They are usually in pairs. The numerous flowers are arranged in loosely spreading and branching terminal clusters. Four of the five lobes of the bell-shaped corolla are nearly equal, and the fifth, which is much larger, and has a finely fringed edge, protrudes like the drooping lip of an Orchid. Two anther-bearing stamens and the pistil extend far beyond the corolla. This plant is found from Maine and Ontario to Wisconsin and south to Florida and Kansas.

GREAT MULLEIN. VELVET, OR MULLEIN DOCK. FLANNEL-LEAF. AARON'S ROD

Verbáscum Thápsus. Figwort Family.

The Great Mullein erects its tall, stiff shafts here and there, like so many floral lighthouses, guarding our dry fields and rocky hillsides, or guiding various insect aeroplanists by the irregular glint of its constantly changing blossoms. The Roman "candelaria," a torch used in funeral ceremonies, was made from dried Mullein stalks dipped in melted suet. The leaves were formerly used for lamp wicks by the

Greeks. The hag-taper, used in witchcraft, was made from this plant. In domestic practice, Mullein tea has been long used by country people for relieving coughs and throat irritations, and the dried leaves are smoked for the same purpose. When soaked in oil, the leaves are used for allaying pain, and inflammations. The soft, hairy leaves are also said to impart a desirable peach-like glow to the complexion of pale cheeks, when rubbed thereon. Children have great fun playing Indian and using the dried stalks as "spears." The usually single, leafy stalk rises from two to seven feet high, from a tufted rosette of leaves. It is round and tough, and is densely covered with whitish, woolly, and branched hairs. The large, thick, velvety, pale green, oblong leaves are sharply pointed, and narrowed at the base. They are obscurely toothed, and prominently ribbed. The basal leaves have broad stems. Those upon the stalk are stemless, narrower, and occur alternately. The light yellow wheel-shaped corolla has five unequal, rounded and spreading lobes. The five protruding orange-tipped stamens are unequal. Three of these are fuzzy or bearded, and shorter than the other two, which are longer and smooth. The pistil is green. The woolly green calyx is five-parted. The flowers are densely crowded in prolonged, round, terminal, club-shaped spikes, and open, two or three at a time, for one day's duration. The leaves of the large rosette are conspicuous long before the wand-like stalk appears. This Mullein is common

from Nova Scotia to Minnesota, Florida, Kansas and California, from June to September.

MOTH MULLEIN

Verbáscum Blattària. Figwort Family.

The Moth Mullein flashes its yellow or white search-lights this way and that, over the grassy seas of neglected pastures and fields, and along waysides, from June to November. They are singularly attractive, these large, wheel-like flowers, as they open one or two at a time, and for a day only. The tall, slender, round, and often hairy stalk is usually single, and grows from two to six feet high. The large, oblong, or lance-shaped leaf has a very irregular, double-toothed margin, and is seldom present during the flowering period. It is thin, smooth, stoutly ribbed and prominently veined. The arrangement is frequent and alternating, and the upper ones are partly heart-shaped and clasping. The flowers, which are either white or yellow, resemble those of the Great Mullein in structure. The white and yellow blossoms are borne on separate plants. They are lightly stained with purple. The five orange-tipped stamens are covered with fuzzy, purple hairs. The five-parted green calyx has slender, recurved tips. The flowers are set on short stems, and gathered in a very long, loose terminal spire. They are fragile, and easily drop from the calyx. The bud is flat and five-angled. This plant is said to be offensive to cockroaches. It is

found from Quebec to Florida, and west to Kansas, Minnesota, and California.

BUTTER-AND-EGGS. YELLOW TOAD-FLAX. BRIDE-WEED. FLAXWEED. EGGS-AND-BACON

Linària vulgàris. Figwort Family.

The beautiful yellow and orange flower spikes of this extremely common and homely named perennial are too well known and too little appreciated to warrant an extended description. Its colour scheme is "butter-and-eggs," all right, at least according to the chemistry of the breakfast table and of the kitchen at baking time. This plant is naturalized in this country from Europe, and is supposed to possess healing powers that country people still regard with much simple faith. The flowers have been steeped and used in cases of dropsy, jaundice, and various skin effections. The fresh plant has been bruised and applied as a poultice on boils, and the flowers are made into an ointment that is used for the same purpose, as well as for other skin eruptions. In Germany, the flowers are used as a yellow dye. Country folks used the juice in milk as a fly-poison. It is a very leafy perennial, having short rootstocks, and growing erect from one to three feet in height. The usually single, slender stalk is round and smooth, light green in colour, and has a whitish bloom. The long, narrow, grass-like leaves taper to a point at both ends, and they clasp the stalk alternately. The colour is pale green, and the midrib extends the entire length. The

BUTTER AND EGGS. TOADFLAX. Linaria vulgaris

light yellow, two-lipped, tubular flower has a long, sharp, outward curved spur at its base. The two earlike lobes of the upper lip are elevated, and prettily curved over the lower one. The spreading lower lip has three unequal outward-curving lobes; the centre one being the smallest, and at the throat, this lip has a great, orange-coloured, tongue-like swelling that nearly closes the tube, and hides the four unequal stamens and pistil, which are flattened against the upper lip. The throat, which can be seen by spreading apart the jaw-like lips of the flattened corolla, is lined with a silky down. The light green, five-parted calyx is very small. The flowers are hung on short stems springing from the axils of the leaflets, and are closely gathered in a dense terminal spike. This plant has an unattractive odour, and is found growing most everywhere in fields, pastures, and along roadsides, ditches and banks, often in small colonies, from June to October, from Canada to Virginia, and Nebraska.

FERN-LEAVED, FALSE FOXGLOVE

Gerárdia pediculària. Figwort Family.

A beautiful species, with handsome, fern-like leaves, found in dry woods and thickets mostly along the Atlantic Coast States, during August and September. It is an annual or biennial plant, and is rather sticky, hairy and much-branched. The very leafy, round, slender stalk grows from one to four feet high. The soft, downy, light green leaves are set in pairs upon

the stalk. They are deeply cleft into many-toothed lobes, and are usually stemless and broadest at the base. The classic calyx matches the leaves, and the beautiful, light yellow, tubular flowers resemble those of the Downy False Foxglove. The bell-shaped corolla, however, is particularly hairy and sticky on the outside. The flowers are set on short, curving stems that spring from the axils of the leaves. They are frequently arranged in pairs toward the ends of the branches. This species is partly parasitic, and often its own roots clasp themselves, as well as those of other plants from which they absorb nourishment. The flowers and foliage droop miserably when plucked, and are difficult to revive. They are found from Maine and Ontario, to Minnesota, south to Florida and Missouri.

DOWNY FALSE FOXGLOVE

Gerárdia flàva. Figwort Family.

This species is partly parasitic, absorbing part of its nourishment from the roots of other plants with which its own roots come in contact. The lovely large, yellow, deeply tubed flowers are very showy, and blossom during July and August in dry, open woods and thickets. It is a downy, grayish perennial, growing from two to four feet high, and is leafy and usually unbranched. The square, hollow stalk is quite brittle, and when fully flowered, it often assumes a slanting position, due, probably, to its top-heaviness, and on account of the buds and blossoms flaring to one side. The thick, velvety, yellow-green leaves are

borne in opposite pairs, which are set alternately upon the stalk with short, purple-stained stems. They are generally oblong or lance-shaped, with a tapering tip, and are narrowed at the base, with their entire margins tinged with purple. The lower leaves are sometimes irregularly lobed and toothed, or wavy-edged, and the upper ones are much smaller and clasping. The prominent midrib is stained with purple. The pale yellow flowers are funnel-shaped, with five rounded, spreading lobes, which are fulled in the centre, forming curled edges. The two upper lobes curve forward, and the three lower ones curve backward. The texture is finely wrinkled and veined. The four yellow stamens — two long and two short — together with the inner surface of the corolla tube, are covered with fine hairs. The tips of the stamens have a pair of sharp points on the lower side. The pistil is green. The five-parted, woolly green, bell-shaped calyx has recurving tips. The bud is noticeably round on the top, and is very glossy. They are tinted with green. The beautiful flowers are crowded on the stalk in a lovely terminal, leafy spike, several blooming at the same time. This Foxglove is found from Maine to Ontario, Wisconsin, and Iowa, south to New York, Georgia and Mississippi.

NARROW-LEAVED COW-WHEAT

Melampyrum lineare. Figwort Family.

An inconspicuous, low-growing annual found from May to August, in dry open woods and thickets. The

branching, hairy and leafy stalk rises from six inches to a foot or so in height. The toothless, short-stemmed, lance-shaped leaves are taper-pointed and narrowed at the base. They occur in opposite pairs, and the topmost frequently have from two to six bristle-like teeth near the base. The midrib is noticeable, and the edge is rough to the touch. The small tubular, greenish yellow flowers are set singly in the axil of the upper leaves. The corolla is two-lipped. The upper lip is arched, and the lower one is three-lobed and spreading and is tinted with yellow. This Cow-wheat is very common and is found growing in favourable places from Canada to Georgia, Tennessee and Iowa.

YELLOW BEDSTRAW. LADY'S BEDSTRAW. CHEESE-RENNET. BEDFLOWER. FLEAWORT.

Gàlium vèrum. Madder Family.

The name Bedstraw alludes to the legend in which one of these plants was found among the hay on which Mary, the Mother of Jesus, rested. This yellow-flowered species has been introduced from Europe, and is found from May to September in dry fields locally from Maine to New Jersey, Pennsylvania and Ontario. The bruised plant is sometimes introduced into milk, in order to impart a yellow colour to cheese. It is also used for dying yellow. The roots of this, as well as those of most other species, dye red, and when the plant is eaten by animals, it colours the bones, like madder. It was formerly

reputed as a remedy in fits and hysterics, and the fresh juice was applied externally for skin disorders. The Yellow Bedstraw is a single or branched perennial growing from six to thirty inches high. The stem is usually smooth, and the narrow leaves are arranged in whorls of sixes or eights. The numerous yellow flowers are gathered in small, dense terminal clusters, or set at the axils of the leaves.

GOLDEN ASTER

Chrysópsis mariàna. Thistle Family.

The beautiful golden heads of this Aster-like species are generally common during August and September, along the Atlantic Coast. The stout stalk branches at the top for the flowers. It is covered with long, weak, silky hairs when young, and becomes much smoother as the season advances. It grows perennially from one to two and a half feet in height. The acutely pointed upper leaves are oblong or lance-shaped, and clasp the stalk. The lower ones are narrowed into short stems and are broadest toward the tip. They are hairy and veiny, and their margins are usually toothless. The rather large flower head is composed of both ray and disc florets, which are held in a bell-shaped cup of overlapping green bractlets. They are commonly numerous, and are loosely gathered on slender stems, which spring from the axils of leaflets and form loose, showy, flat-topped clusters. The Golden Aster prefers dry soil in fields and open woodlands, from New York to Florida and Louisiana.

There are about twenty species of this group found in North America and Mexico.

THE GOLDEN-RODS

Solidago. Thistle Family.

Heralding the advent of the final, and most gorgeous floral pageant of the year, the monotoned Golden-rods literally romp over everything that is rompable from valley to peak. They form a most conspicuous and truly regal escort for their consorts, those bewildering hosts of starry Asters which, in eager haste, strive to overtake them. Thoreau wrote:

> "The sun has shone on the earth,
> And the Golden-rod is his fruit.
> The stars, too, have shone on it,
> And the Asters are their fruit."

The Golden-rods may represent the main crop of the "sun's fruit," but surely the Dandelion and Buttercup, in fact a hundred others for that matter, of this cloth-of-gold, are entitled to some consideration in this conclusion. The Golden-rod is so very well and familiarly known that it requires little, if any, introduction. There are upward of eighty species, perhaps more, in the United States, and besides, there are many hybrids — intergrades — which make them extremely difficult to distinguish as distinct species. We Americans hold a certain natural affinity toward this purely native-bred beauty, and it is pretty generally conceded to be the favourite for our national flower. It has already been adopted as the State flower

of Alabama, Kentucky, Maryland, and Nebraska. The scientific generic name, *Solidàgo*, signifies to join, or make whole, and alludes to the healing qualities which this plant was formerly supposed to possess, when applied to wounds. One hundred year ago the Golden-rod was regularly exported to China, where it commanded a high price. Sheep will forage upon it. Golden-rods grow in greatest profusion, and are exceedingly socialistic; numerous species occurring in the same community. Casual observers, however, seldom realize that several widely differing species invariably make up the various masses of yellow, which they pass afield or by the wayside, as Golden-rod. Time and again I have amazed those whom I have accompanied out of doors during September, by calling their attention to the number of different varieties of Golden-rod about them. F. Schuyler Matthews records finding no less than *fifteen* well defined species within a quarter-mile length of road in New Hampshire. As the flower clusters fade they become hoary, and the seeds, tipped with fine, feathery hairs, somewhat after the manner of the Dandelion seeds, are wafted by the winds in every direction. During the winter when other food is scarce, the seeds of the Golden-rod are sought by the goldfinch and song sparrow. The following species are most likely to be found growing more or less commonly throughout our range, and they will become a satisfactory group about which to establish other species, which are sure to be found most everywhere. All have yellow

flowers excepting one, which is called Silver-rod, from its white or cream-coloured spikes.

BLUE-STEMMED, WREATHED, OR WOODLAND GOLDEN-ROD

Solidàgo caèsia. Thistle Family.

This very slender, curving, leafy and smooth-stemmed species is characterized by the bluish or purple bloom of its stalk, which grows from one to three feet high. The thin-textured, oblong or lance-shaped, feathery-veined leaves taper toward either end, and are sharply pointed. The margins are sharply toothed, and the midrib is distinct. They are arranged alternately upon the stalk, and at short intervals. The yellow flowers are wreathed in pretty clusters all along the stalks in the axils of the leaves. Like most of its kind, this species has a top-heavy appearance, a peculiarity which often causes the stem to curve gracefully under its golden weight. It is found commonly during August, September and October, in and about moist, shaded woods and thickets of a deciduous nature, from Manitoba and Ontario to Minnesota, Florida, Alabama and Texas. The Blue-stemmed Golden-rod is probably the latest blooming species of the year.

ZIG-ZAG, OR BROAD-LEAVED GOLDEN-ROD

Solidàgo latifòlia. Thistle Family.

This species is readily distinguished by its usually single, zig-zagged or angular, green stem, and also

by its broad oval, yellowish green leaves. The latter have short stems and a very strongly and sharply toothed margin, and acutely pointed tips. Sometimes the upper leaves graduate into smooth edged, lance-shaped formations. Otherwise the plant has, in a general way, many of the characteristics of the preceding species, and the light yellow flowers are set quite the same. The prolonged, slender, leafy stem does not seem to be strong enough to hold itself erect, and it is more apt to be found in a reclining or bending position. It prefers the shadows of rich, open, wooded banks from New Brunswick to Georgia, and to Minnesota and Missouri, from late July to early October.

WHITE GOLDEN-ROD. SILVER-ROD

Solidago bicolor. Thistle Family.

It requires more than a passing glance to recognize this hoary albino as a Golden-rod, when one meets with it for the first time. The flowers are cream-coloured or almost white, and the stalk and foliage have a grayish aspect, due to a fine hairy growth upon their surfaces. The unusual colour of the flowers often fools one who has not yet become acquainted with its one dominant peculiarity. But once distinguished, it need never become confused, since it is the only one of its genus that is not yellow. The rather stout stem is either simple or branched, and grows from six inches to four feet in height, and is often stained with purple. The dark green, feather-

veined leaves are toothed and stemmed. They are nearly paddle-shaped at the base of the stalk, and graduate to lance-shaped with modified margins toward the top, where they mingle with the flowers. They are more or less hairy. This species is truly a Silver-rod. It is too erect and stiff to be graceful, but its terminal spike is evenly studded all around with the little short clusters of whitish flowers, relieved here and there by a tiny green leaflet, and is unusual if not attractive. From five to fourteen small white ray flowers surround the cream-coloured centre of disc flowers. The Silver-rod prefers dry soils, where it blossoms from August to October. It ranges from New Brunswick to Georgia, and west to Ontario, Minnesota, and Missouri.

BOG GOLDEN-ROD

Solidàgo uliginòsa. Thistle Family.

Think of this pretty flash of yellow spending its life among the bogs and in dismal swamps, even in Newfoundland! One imagines it to be the nun of the family, sacrificing a conventional life to brighten those lonely, desolate wastes. Or, are they Nature's beacon lights intended to guide the straggling and wayward insects and butterflies that have vainly sought some Will-o'-the-Wisp in these same dreary places. It raises its single, smooth, stout stem from two to four feet in height. Its thick-textured leaves are lance-shaped, and they decrease in size as they approach the top of the stalk. The basal leaves are sometimes

a foot in length, and they taper into long, winged petioles or stems, that partly clasp the stalk. The margins are more or less toothed or even entire. The bright yellow flowers are thickly crowded on their little stems, and form a compact, oblong and cylindrical, terminal spike. It is distributed along the wet shores and bogs from Newfoundland and northern New Jersey, to western Ontario, Minnesota, and Wisconsin; also in the mountains of North Carolina, during August and September.

SHOWY, OR NOBLE GOLDEN-ROD

Solidàgo speciòsa. Thistle Family.

This is one of the most striking and fascinating of its genus. The large, round, usually single stalk raises its magnificent golden plume anywhere from three to seven feet in height. Neither is there anything mussy or fussy in the makeup of this stately beauty. It is remarkably clean-cut and well-groomed in every detail. The smooth-surfaced and rough-edged olive-green leaves are rather thick and firm-textured, and they alternate on the stalk. You can detect this plant instantly by its leaves, because they are so different from the general run of its kind. The lower leaves are oblong and pointed, and they taper toward the base into margined stems. As they ascend the stalk, they become smaller, and graduate into lance-shaped leaflets, that finally disappear as they mingle with the great floral head. The stalk is often stained with red, and adds much to the general appear-

ance of the plant. The flowers are closely set on numerous, ascending, slender, branch-like stems of unequal lengths. These stems are pyramided until they form a compact, but graceful, cone-shaped mass of clear yellow. The protruding stamens of the disc flowers lend a finished touch that is well nigh irresistible in its attractiveness. The showy Golden-rod prospers in rich, well-drained soil near open woods and thickets, where several healthy stalks rise from a small circle about the same clump of roots. It is found locally during September and October from the New England States to Minnesota southward.

SEASIDE, OR SALT MARSH GOLDEN-ROD

Solidùgo sempérvirens. Thistle Family.

This tall and lovely maritime species skirts the Atlantic Coast from the Gulf of St. Lawrence to Florida and Mexico. It is also found in Bermuda. From August to December it flourishes wherever sandy soil and brackish waters abound, illuminating the salt marshes, sea-beaches and rocky shores near the sea or along tidal waters adjacent thereto, with the brilliance of its rich, golden yellow torch. It is easily distinguished by its smooth, stout, usually single stalk, which rises from two to eight feet in height, and also by its thick, fleshy, smooth-edged, slightly clasping, lance-shaped, bright green leaves, showing from two to five lateral veins. The basal leaves are oblong and paddle-shaped, and taper into long stems. The

FOUR-LEAVED, or WHORLED LOOSESTRIFE. Lysimachia quadrifolia

BUTTERFLY-WEED. Asclepias tuberosa

flowers are rather large, and have from seven to ten rays. They are thickly grouped on short, spreading, recurved stems, many of which form a large, showy, terminal, leafy plume. This charming species inspired Celia Thaxter, who wrote:

> "Graceful, tossing plumes of glowing gold,
> Waving lonely on the rocky ledge;
> Leaning seaward, lovely to behold,
> Clinging to the high cliff's ragged edge."

EARLY, PLUME OR SHARP-TOOTHED GOLDEN-ROD. YELLOW-TOP

Solidàgo júncea. Thistle Family.

This species is one of the earliest and latest, as well as one of the handsomest and commonest of its genus. Its smooth, round, rather stout, rigid and light green stalk rises to an average of two feet in height. Near the top it branches into numerous long, slender, drooping extensions, along the upper side of which, near the tips, the golden-yellow flowers are densely crowded. The rays number from eight to twelve, and are very small. The long-oval, pointed, lower leaves have sharply defined, spreading teeth, and are narrowed into winged stems. The upper leaves are long and narrow, and taper toward either end, with more or less entire margins. Their surface is smooth, and they are slightly triple-veined. Small leaflets spring from the angles of the leaves, which alternate on the stalk. The dried plumes are commonly used for decorating in farm and country houses. Yellow-top is found in dry or rocky soil in copses and banks from

New Brunswick to Hudson Bay, and Manitoba to North Carolina and Missouri, from June to November.

SWEET, OR ANISE-SCENTED GOLDEN-ROD. BLUE MOUNTAIN TEA

Solidàgo odòra. Thistle Family.

The bruised foliage of this species diffuses a pleasant and lasting anise-like fragrance which instantly reveals its identity. It yields a volatile oil, and at one time the dried leaves and flowers were steeped like tea, and used for medicinal purposes. Its smooth, toothless, bright green leaves are long and narrow, and are conspicuously dotted with minute, transparent specks. They are thin-textured, and have a prominent midrib. The slender, simple stem rises from two to four feet high, and is often reclining. The flowers are small and unattractive, and have three to four rays. They are arranged on small spreading stems in a loose, one-sided, plume-like terminal head. This species frequents the borders of thickets in dry or sandy soil from southern New Hampshire and Vermont to Florida, and west to Texas and Missouri, from July to September. It is common in the pine barrens of New Jersey.

ELM-LEAVED GOLDEN-ROD

Solidàgo ulmifòlia. Thistle Family.

This common, slender and smooth-stemmed Golden-rod is characterized by the strong resemblance of its leaves to those of the Elm tree. They are thin-

textured, and the margins are coarsely and sharply toothed. They are long-oblong, or lance-shaped, and pointed and tapering to the base, loosely veined, and usually velvety to the touch on the under side. The smooth stalk becomes hairy toward the top, where it branches loosely into several slender, leafy, recurving and spreading stems, along one side, of which near the tips, are set the little yellow flowers. The latter have about four rays. This species selects the broken shadows of dry rocky woods and copses, from Maine to Georgia, and west to Minnesota and Texas, from July to September.

WRINKLE-LEAVED, OR TALL HAIRY GOLDEN-ROD. BITTERWEED

Solidàgo rugòsa. Thistle Family.

A very hairy and rough species, growing from one to seven feet high, and usually found in fields and along fences and roadsides from July to November. The straight, stout, long-haired stalk is crowded with sharply toothed, long-oblong, and lance-shaped leaves, that taper at the base, and are thinly textured, and loosely veined. They are very hairy, particularly so on the under side, and are slightly wrinkled. The flowers are set on one-sided stems which are grouped in a spreading leafy head, formed by the erect branching of the stalk at this point. The ray flowers number from six to nine, and the disc flowers from four to seven. This species is very variable, and ranges from Newfoundland and Ontario to Florida and Texas. Cattle, as

a rule, avoid the Golden-rods as a steady diet, and are particularly keen to avoid this rough Bitterweed.

GRAY, OR FIELD GOLDEN-ROD. DYER'S WEED

Solidàgo nemoràlis. Thistle Family.

This common species raises its slender, ashy-gray stalk from six inches to two feet high. It is single, very leafy, and covered with minute whitish hairs. It has been considered one of the most brilliant of its kind, on account of its exceedingly rich, yellow flowers. It is a low-growing plant, and is somewhat late to appear in flower. The thick, roughish leaves are three-ribbed, and the lower ones are broadest and taper into stems. As they mount the stalk, they graduate rapidly into long, narrow-pointed affairs, and their margins are slightly toothed. The pretty, five to nine rayed flowers are set on little recurving stems toward the top of the stalk, forming a close, succeeding series of flat-topped, leafy clusters that finally compose the beautiful, one-sided plume. This plant is found in fields and dry roadsides, from July to November. It ranges from Quebec and the Northwest Territory to Florida, Texas, and Arizona.

CANADA GOLDEN-ROD. YELLOW-WEED

Solidàgo canadénsis. Thistle Family.

Here is a feather duster of glowing gold, and a close rival of the elegant Showy or Noble Golden-rod. It is probably the largest, showiest, and most common of them all — if not, indeed, the handsomest. It

is exceedingly democratic, and grows vigorously wherever it elects to drop a root. In thickets and rich, open soils it is at its best, although it blossoms serenely in dry soil in fields, and along dusty roadsides, from July to October. The tall, stout, rough stem is thickly covered with minute hairs, and grows from three to eight feet high. At the top it branches in every direction, with slender, drooping, pyramiding stems that are broadly and thickly set on the upper side, with the tiny, bright yellow, three to seven rayed flowers. The stalk is crowded with the narrow, tapering, thin-textured and sharply toothed, long, three-veined leaves. The basal leaves are broader, and have slender stems. They are usually smooth above and finely hairy beneath. Canada Golden-rod flourishes from Newfoundland to the Northwest Territory, and British Columbia, southward to Florida and Arizona.

BUSHY, OR FRAGRANT GOLDEN-ROD

Solidago graminifolia. Thistle Family.

This species differs so much from the true Golden-rods, *Solidago*, with which it is classed, that many botanists regard it as the leading type of a separate and new genus, *Euthamia*, a Greek word referring to its clustered heads. The crushed leaves and flowers are fragrant. This, together with its flat top has often caused it to be mistaken for Tansy. Its slender, leafy, green stalk branches widely at the top. It is occasionally rough to the touch, and grows from two to four

feet high. The long and very narrow grass-like leaves taper toward either end, and their margins are entire, but very rough. They are very small, and thin-textured, grayish-green in colour, and show three or five ribs. The flowers are very small and are closely grouped in small, round clusters at the tips of the projecting, wiry branches, which are so graduated in length as to form a flat-topped, flowering head. The whole top is very free and open, and has a neat, trim appearance. The flowers are light coloured, and have from twelve to twenty very short ray flowers. This plant is found in moist soil in fields and along roadsides, from July to October. It ranges from New Brunswick to the Northwest Territory, south to Florida, Nebraska, and Missouri.

ELECAMPANE. HORSEHEAL. YELLOW STARWORT

Inula Helènium. Thistle Family.

Hippocrates, the Greek physician, known as the "Father of Medicine," over two thousand years ago, considered this plant important as a brain and stomach stimulant, and it has been used ever since for various ailments. The country housewife has great faith in its virtues, and her Elecampane tea is still used for coughs and colds, and as a general tonic. It has also been used as an antiseptic in surgery. Farmers use the large, mucilaginous roots to advantage in treating sick horses. The stout, usually unbranched, leafy stalk grows from two to six feet in height. The

large, curving, alternating leaf is broadly oblong and pointed. It is rough above and downy beneath; finely toothed, strongly ribbed, thick-textured, and clasps the stalk, often with a pair of flaring lobes. The larger, lower leaves taper toward either end, and are set on slender stems. The solitary, large, yellow flower heads are set on the top of stout, terminal, single leafed stems, and are supported with a small, single leaf, which is set close to their shallow green cups. The numerous tubular florets are set in a large, flat disc, and are surrounded with a fringe of many long, narrow, curving spreading rays. Elecampane is found along roadsides, fence rows, and in fields, from July to September, from Nova Scotia, Ontario, and Minnesota, south to North Carolina and Missouri.

BLACK-EYED-SUSAN. YELLOW DAISY. NIGGER-HEAD. GOLDEN JERUSALEM. CORNFLOWER

Rudbéckia hírta. Thistle Family

The lively orange and black heads of these thrifty, conspicuous flowers seem to accelerate the grandeur of our fields and meadows from May to September, where they flaunt their Princeton colours with a vigour that the farmer beholds with contempt, because he cannot capitalize their beauty along with his hay. The slender, hairy stems are tough, usually unbranched, sparingly leaved, and grow from one to three feet high. Often several stems occur in a tuft. The long, narrow, pointed leaves have a rough, hairy surface, and partly clasp the stem. They have a strong midrib,

are rather loose-textured, and the margins are frequently slightly notched with low teeth. The flower heads are few or solitary. The tiny disc florets are densely packed in a purple brown, cone-shaped head, that has a smooth, silky sheen when newly opened. They are surrounded at the base with from ten to twenty long, narrow, orange-yellow rays. They are notched at the tips, and have two faint parallel veins running their length. The flower head is supported with an overlapping, triple-rowed, green mat, which terminates the stem. They are found in dry, open, sunny fields, from Canada to Florida, Colorado, and Texas.

COMMON SUNFLOWER. LARABELL

Helíanthus ánnuus. Thistle Family.

The Sunflowers are native to this country, and this species is extensively cultivated in Russia, India, Turkey, Egypt, Germany, Italy, France and China, as well as here, for the production of fixed oil contained in the seed. This oil is said to make an excellent salad dressing and to be one of the best burning-oils known. The stalk, when treated as is flax, yields a long, fine fibre, which is said to be used in China for the adulteration of silk. The Sunflower is believed by some to ward off the effects of malarial fevers, and in Caucasus malarial patients are wrapped in sheets saturated with milk, and covered with the leaves of this plant. The Pah Ute Indians are said to be very fond of Sunflower seeds as food. The seeds are ped-

dled about the streets of Russia, like peanuts, except they are eaten raw. The Sunflower also yields a by-product used in making soap and candles. The stems and heads make an excellent paper, and are used for fuel. The seeds are also used as food for parrots and for fattening poultry and swine. The foliage has been used for fodder, and the flowers yield honey and also a yellow dye. The tall, stout, rough, hairy stalk is leafy, and branches at the top. It grows annually from three to six feet high, or in cultivated forms, sometimes fifteen feet high. The large, alternating, long-stemmed leaves are broadly oval with a tapering tip; strongly three-nerved, coarsely toothed, and rough on both sides. The lower ones are often heart-shaped. The flower heads of the wild species, which measure from three to six inches broad, are composed of numerous dark purple or brown tubular disc florets, surrounded by a row of long, curving, flaring yellow rays, contained in a flat green mat edged with several rows of pointed green parts. They terminate the stalk and stout stems springing from the axils of the leaves. The Wild Sunflower is found from July to September, in rich soils, from Minnesota to the Northwest Territory, Missouri, and Texas and California. Occasionally it is found in waste ground eastward, where it has escaped from gardens. The generic name is from *helios*, the sun, and *anthos*, a flower. The heads face the sun, and usually turn in its direction. There are about sixty species belonging to this group which are native to our hemis-

phere. Of this number about forty are found in North America.

TALL, OR GIANT SUNFLOWER

Heliánthus gigantèus. Thistle Family.

A tall perennial species, with a rough, hairy, purple-stained stalk rising from three to twelve feet high from fleshy, creeping, edible roots, and are either single or branching at the top. The firm-textured, taper-pointed, lance-shaped leaves are very rough above, and rough hairy beneath. They are narrowed at the base, and are set on short stems or clasp the stalk. The margins are finely toothed or entire. Many or all of the upper leaves are alternate, but sometimes they all are paired. Usually several flower heads are borne on long, terminal stems, and are often two and a half inches broad. The yellowish disc florets are surrounded with from ten to twenty pale yellow rays, and are held together in a deep green, half round cup. This Sunflower is found in low thickets, swamps, and wet meadows from August to October, from Maine and Ontario to the Northwest Territory, and south to Florida, Nebraska and Louisiana. A more northern variety of this species develops tuberous roots, and because they are used as food by the Indians, they are known as Indian potatoes.

JERUSALEM ARTICHOKE. EARTH APPLE. CANADA POTATO

Heliánthus tuberòsus. Thistle Family.

Long before Columbus set foot on our shores, the native Indians cultivated this species for its thick,

tuberous roots, which they used for food. It is still frequently raised for similar purposes. The roots are tender and of fine flavour, and are eaten either raw, or cooked. They also make a popular relish when pickled. The tall, stout, leafy, hairy stalk grows perennially from six to twelve feet high, and branches at the top. The large, rather long-stemmed, triple-ribbed, pointed-oblong leaves have toothed margins and hairy surfaces. The upper ones are alternate, and the lower ones are paired. The brilliant flower heads are several or numerous, and are set in green, leafy, half-round cups, and are composed of numerous small, yellow, tubular disc flowers, fringed with from ten to twenty long, flaring, rich, yellow rays. Few or several flower heads are set on the tips of the terminal branches. This species prefers moist soil, and is found along fences, roadsides, and thickets during September and October, and ranges from Georgia and Arkansas to Canada.

BEGGAR-TICKS. STICK-TIGHT. STICK-WEED. RAYLESS MARIGOLD. PITCH-FORKS. COMMON BUR MARIGOLD

Bidens frondosa. Thistle Family.

Bidens means two teeth, and refers to the two sharp prongs of the flat, brown seed of this species, which attaches itself to everything in the line of clothing or wool that happens to brush against it. They will not shake off, either, and their removal requires the most patient and exacting effort, as anyone who has roamed the fields in the fall can testify. The

tall, annual, erect, very leafy stalk grows from two to nine or ten feet high, and branches in pairs. It is usually smooth and hollow, and often stained with purple. The thin, sharply toothed, slender-stemmed leaves are divided into three or five lance-shaped parts which are tapered toward the apex and narrowed at the base. They are set on short, ribbed stems, that unite with the stalk in pairs with a noticeable clasping joint, from the axils of which spring the curving flower stems. The very small, ragged, rayless, bristling flower heads are homely and unattractive. The two or three dull yellow ray flowers are very inconspicuous, if any, and the brownish yellow tubular florets of the central head are tightly packed together. The head is surrounded with several narrow leafy bracts of various lengths, and several heads are clustered in a loose terminal group. Beggar-ticks are exceedingly common, and aside from their affectionate stickers, they are an uninteresting plant. They are found everywhere in moist places, and along roadsides and railroad ditches, from July to October, and range from Nova Scotia to Florida. British Columbia, Nebraska, and Texas.

SNEEZEWEED. SWAMP SUNFLOWER. YELLOW STAR. OX-EYE

Helènium autumnàle. Thistle Family.

During September the bright yellow blossoms of the Sneezeweed illuminate the low meadows and swamps from one end of the country to the other. The stout, branching stalk rises from two to six feet in

height. The firm, pointed, oblong or lance-shaped bright green leaves are sharply toothed and alternating. They possess a bitter taste, and when dried and powdered into snuff, produce violent sneezing. The foliage is believed to impart a bitter taste to milk, when cows forage upon it. The numerous large flower heads are borne on long stems in loose, spreading, rather flat-topped, terminal clusters. From ten to eighteen spreading and drooping ray florets, with three cleft tips surround the yellow or yellow-brown globular disk of tubular florets. The Swamp Sunflower is found from Quebec to Florida, and west to the Northwest Territory and Arizona, and blooms from August to October.

TANSY. BITTER BUTTONS. HINDHEEL. GINGER-PLANT

Tanacètum vulgàre. Thistle Family.

Tansy was one of the good old "standbys" of our grandmothers' time, and was relied upon to cure anything and everything in the way of bodily ills that happened to disturb any member of the household, down on the farm. It was also one of the favourite plants in the flower beds that used to decorate the grass plots about our dear old homesteads. Its dried leaves were formerly used for flavouring or seasoning various dishes, particularly puddings and omelets. Tansy tea was also in great favour as a domestic tonic and stimulant, and is still used for various ailments of the stomach and liver. It is also used locally for relieving pain in muscular rheumatism and bruises.

Frivolous damsels of the sixteenth century soaked Tansy leaves in buttermilk for nine days, and used the liquid for improving their complexions. Bunches of Tansy are hung about the house, and its presence is said to be very effectual in keeping flies out of the rooms. Thoreau says that it was used in connection with funerals. The round, smooth, upright stalk is leafy, and branches at the top. It grows from one and a half to three feet high, from a perennial root. The strongly scented, curling, dark green leaves are very deeply cleft into numerous narrow, lance-shaped sections, which are sharply cut and toothed. They are bitter and aromatic. The flower head resembles the yellow button or disc of a Daisy after the white ray flowers have been removed. The numerous tiny, yellow, tubular florets are tightly packed into a small, flat head, which is slightly hollowed in the centre. The heads are set into shallow, greenish cups, on short stems, many of which are closely grouped into several large, dense, terminal, flat-topped clusters. Their odour is noticeable for a considerable distance. Tansy came to us from Europe and grows along road-sides from July to September, where it has escaped from gardens. It is found from North Carolina and Missouri to Canada.

COLTSFOOT. COUGHWORT

Tussilàgo Fárfara. Thistle Family.

This is the same Coltsfoot that our grandmothers used to gather and dry and hang in the garret along

with their Boneset, Catnip, Goldthread, and a various assortment of garden herbs. Coltsfoot was considerably used at one time as a family remedy for coughs and colds, and many a steaming cupful has been sipped by country people for this purpose. Its Latin name, an old one used by Pliny, is derived from *tussis*, a cough, and *ago*, alluding to the medicinal use of the leaves. The ancients smoked the leaves of Coltsfoot for relief in cases of asthma. Its fresh juice has been used for affections of the skin, and in Germany the dried leaves are said to be used as a substitute for smoking tobacco. The flowers of the Coltsfoot look something like those of an imperfectly developed, or half-opened Dandelion, but where the flower heads of the Dandelion are slightly tufted or raised toward the centre, those of the Coltsfoot are cupped or hollowed, more like an Aster, with a finely fringed edge. The rather large, solitary flower is borne on a thick, hollow, light green stem, rising direct from the long, slender, creeping perennial root from four to eighteen inches in height. It is usually stained with red and is covered with numerous scale-like and alternating leaflets. The light yellow flower head is of a lighter shade than that of the Dandelion, and is set in a deep, leafy, thimble-shaped green cup. It is composed of many ray and disc florets — an arrangement fully explained in the description of the Asters. The ray florets are fringe-like, and the small disc florets are five-parted. They have an agreeable odour, and as they fade, they turn to red-brown.

They close at noon in the hot sun. These flowers are usually in bloom before the Dandelions. The leaves do not appear until after the flowers have matured. At first they are rounded and heart-shaped, but finally become larger and more angled. Their surface is soft and cottony, and is strongly marked with ribs and veinings. They are thin-textured, and their margins are more or less toothed. They are silvery on the under side, and are set on long, grooved stems that rise from the rootstock. Coltsfoot may be found from April to June, from Nova Scotia and New Brunswick to Massachusetts, New York and Minnesota, where it has become naturalized from Europe. It prefers moist banks along roadways and streams.

GOLDEN RAGWORT. LIFE-ROOT. SWAMP SQUAW-WEED. FALSE VALERIAN

Sanècio aurêus. Thistle Family.

The attractive, rich, golden-yellow flowers of this Daisy-like perennial appear in May and June in moist meadows and thickets, and in swamps. It is strikingly clean cut and beautiful. The slender, usually smooth, upright stalk is hollow and sparingly leafy. It is angular and twisting in growth, and rises from one to two and a half feet in height, solitary or tufted, from a strong-scented root. The lower leaves are long stemmed, and are long, rounding, heart-shaped, with scallop-toothed edges. Those on the stalk are partly clasping, and are lance-shaped and deeply cut and notched. The foliage is smooth and thin, and together with the stalk is often stained with

DOWNY FALSE FOXGLOVE. Gerardia flava

GOLDEN ASTER. Chrysopsis mariana

purple. The flower heads have many tiny, deep yellow, star-shaped florets, that are closely tufted with a flaring fringe of from eight to twelve short, recurved deep yellow ray flowers, loosely set around and just below them. The ray flowers are finely grooved, and their tips are slightly notched. They are all set in a deep, smooth yellow-green cup, and several heads, perhaps a dozen, are comfortably gathered in a somewhat flat-topped terminal cluster. The roots are used in medicine. *Senico* is derived from the Latin, *Senex*, an old man, and refers to the silky white hairs that succeed the flower. This Ragwort is found from Canada to Florida, and Texas.

DWARF DANDELION

Krîgia virgînica. Chicory Family.

A small annual, bearing tiny, deep yellow or light orange-coloured flowers on long, slender, naked stems, that rise from one to fifteen inches in height. The flowers resemble in miniature, those of the Dandelion. They close at night, and when the seed is ripe, they again resemble, on a small scale, the "blow-head" of the latter. Several stems rise from the pretty little circular tuft of long, narrow leaves, and have a remote likeness to those of the Dandelion. They are found from April to August, in dry, sandy soil, from Texas and Florida to Canada.

DANDELION. BLOWBALL. LION'S-TOOTH CANKERWORT. IRISH DAISY

Taráxacum officinàle. Chicory Family.

The Dandelion, like the Daisy, scarcely needs to be described. It is known from one end of our great

country to the other, and, notwithstanding its exceeding abundance, the first bright, solitary flowers are always a welcome sight in the spring. Children love to split the smooth, hollow flower stem with their tongues, and make long, spiral curls and ribbons. They also use them for blowing soap-bubbles, and for sipping water from a spring, or by blowing through them, produce funny noises. They have rare fun foretelling the number of children they may have, or even the time of day, by the number of puffs it takes to remove the downy fluff from the round, fuzzy white heads when the flower has gone to seed. In the spring, the leaves are gathered and eaten in immense quantities like spinach, or as a salad, by the immigrant Italians who unwittingly, have established an excellent and popular relish now served in our homes and hotels, and which is pronounced by epicures to be a most wholesome and appetizing salad. The root is ground and roasted, and used like coffee. The root and leaves are also used as a popular remedy for liver complaints, and for dyspepsia; also as a spring tonic. The thick, bitter root is sometimes twenty inches long, and grows deeply in the ground. The long, and extremely variable narrow leaf is irregular, and unequally toothed and notched with the wavy, jagged points inclined toward the stem. Its smooth surface is divided with a wide, thick, pale green midrib. Ofttimes the leaves resemble in outline a series of triangles or arrow heads. They taper toward the base into narrow winged stems that curve to form a pretty flat rosette. As the thick, green

DANDELION.—Taraxacum officinale.

bud opens, the numerous deep yellow florets, which are rolled lengthwise into tiny, hollow tubes gradually unfold, and become strap-shaped, with their square tips finely toothed. The outer ones open first and curve gracefully backward, until finally, the beautiful flower head assumes, when at its best, the shape of a flat, round and nearly semi-circular golden tuft of overlapping parts. They are held in a cup of many narrow, dark green, leafy bracts, and set singly on the tip of the long, tube-like stem. They open widest in the bright sun, and partly close at night. The plant contains a bitterish, milky juice that exudes freely when any part is broken, and which stains the hands. As the flowers fade, they are succeeded by a round, gray ball of light, feathery plumes, to which are attached the tiny seeds. The Dandelion is found in blossom the year round. While I am writing this description to-day, the third of January, in the vicinity of New York, my notes are supplemented with a freshly opened blossom, which I have just picked from the lawn of our suburban home. Dandelion is an obscure name, but is generally believed to be a corruption of the French *dent-de-lion*, meaning lion's tooth, and refers to the outline of the leaf which is said to resemble that of the teeth in a lion's jaw.

COMMON SOW THISTLE. HARE'S LETTUCE. MILK THISTLE

Sónchus oleràceus. Chicory Family.

A tall and usually single-stalked annual, naturalized from Europe, and growing from one to ten feet high;

from a fibrous root. The smooth, hollow, grooved stalk is leafy below, and contains a milky juice. The large leaves are very decorative, and are used as a salad and as a pot herb. They are Dandelion-like, smooth, shining and clasp the stalk with a heart-shaped vase. They are sharply cut into several irregular, misshapen triangles that succeed each other closely. Their wavy margins are toothed or edged with soft, weak spines. Other leaves are lance-shaped with smooth margins. They alternate along the stalk, and have a stout midrib. The lower leaves are stemmed. Hare's Lettuce became a popular name for this plant because the large leaves afforded shelter for that animal, and, according to "Grete Herbale," "if the hare come under it, he is sure that no beaste can touch hym." The small, pale yellow, flat-topped flower heads are loosely arranged in a spreading, terminal cluster. The numerous fluffy florets are set in a green, vase-shaped cup. The Sow Thistle is a common plant everywhere in fields, and along roadways and fence rows from May to November.

SPRING, OR SHARP-FRINGED SOW THISTLE

Sónchus ásper. Chicory Family.

An annual species, similar to the Common Sow Thistle. The lower leaves are pointed paddle-shaped, and taper into a narrow stem. The upper leaves are gracefully arched and slightly folded, with irregular wavy margins that are thistle-like and fringed with many rather weak, spine-like points. They clasp the

stalk in a pleasing manner with a noticeable pair of rounded, flaring, ear-like lobes, and they are thin, smooth and shining. They were formerly used as a pot herb. The light yellow, Thistle-like flower heads are few or numerous, and are arranged similar to the above species. They are succeeded with a fluffy down. The remarkable, highly decorative leafage of this plant really demands a more deserving name than the one now bestowed upon it. The spring Sow Thistle is found from May to November, and is common throughout most of our area in waste places everywhere.

WILD, OR TALL LETTUCE. WILD OPIUM. TRUMPET WEED. FIREWEED. TRUMPET MILKWEED

Lactùca canadénsis. Chicory Family.

The common, and noticeably tall, leafy stalk of the Wild Lettuce raises its unattractive, pale yellow flowers anywhere from three to ten feet high, in moist, open places, usually along our roadsides, from June to November. This milky-juiced plant is annual or biennial, and is smooth, and branches loosely at the top to accommodate the flowers. The leaves are exceedingly variable in size and shape. The lower ones are sometimes a foot long, and are very irregularly cut, gouged, and wavy-lobed, and as they mount the stalk they become more regular, and are finally often lance-shaped and entire. The rays of the numerous small flower heads are strap-shaped, and are set in a little green, vase-shaped cup. The flowers

are succeeded by conspicuous silky heads of down. The plant has a vigorous growth, and is rather coarse-looking. The generic name is derived from the ancient Latin, *lac-milk*, and refers to the milky juice of the stalk and foliage. Lettuce has been known and used as a salad from a very remote period, and the Persian kings are said to have had it served on their tables, four or five hundred years before the Christian era. The wild plants are often gathered for salad. The ancients believed that Lettuce produced sleep, and it is claimed to possess the calming properties of opium. It has been used to allay cough and to quiet nervous irritation. In France, a water distilled from the leaves is used for its soothing effects. The fresh leaves, when boiled, are sometimes used in relieving convulsions. The Wild Lettuce is found from Georgia, Alabama, Louisiana, and Arkansas, north to Canada. There are nearly one hundred members of this group distributed throughout North America and some of them are difficult to distinguish.

HAIRY, OR RED WOOD LETTUCE

Lactùca hirsùta. Chicory Family.

This is a smaller, less leafy, and usually hairy species, growing generally in dry soils from one to six feet high. The hollow stalk is usually stained with red. The rays of the flowers are reddish yellow, and the blossoms are borne in a loose, branching, terminal cluster. The leaves are more deeply and narrowly cut than those of the preceding. This plant is found

from June to September, from Maine to Ontario, Minnesota, Alabama, and Texas.

ORANGE, OR TAWNY HAWKWEED. GOLDEN MOUSE-EAR HAWKWEED. GRIM THE COLLIER. DEVIL'S PAINT BRUSH

Hieràcium aurantìacum. Chicory Family.

The orange-coloured flowers and grimy stem will always keep this attractive Hawkweed from becoming confused with any of the yellow-flowered species. It has become naturalized here, and came from Europe. The generic name is derived from the Greek, *hierax*, a hawk, because the ancients thought that these birds sharpened their eyesight by feeding on these plants. The slender, round, grooved stalk rises from six to twenty inches from a rosette of leaves. It is quite naked, excepting for one or two small stemless leaves, which it bears near the ground. Its green colour is obscured by numerous, dull brownish hairs with which it is begrimed. The long oval, tufted leaves are narrowed at the base, and are toothless. They are covered with long, whitish hairs. The flower head is composed of numerous short, yellow-centred, orange-red, five-toothed, overlapping, strap-shaped florets that curve outward from the centre. The green cup is covered with the dark hairs. Several heads are rather closely grouped on short stems in a terminal cluster at the top of the stalk. Grim the Collier is a popular English name for this Hawkweed and applies to the general grimy or sooty appearance

of the stalk. It is found in fields, woods, and along roadsides, from June to August, from eastern Canada to Pennsylvania.

RATTLESNAKE-WEED. POOR ROBIN'S PLANTAIN. VEIN-LEAF. HAWKWEED. HAWKBIT

Hieràcium venòsum. Chicory Family.

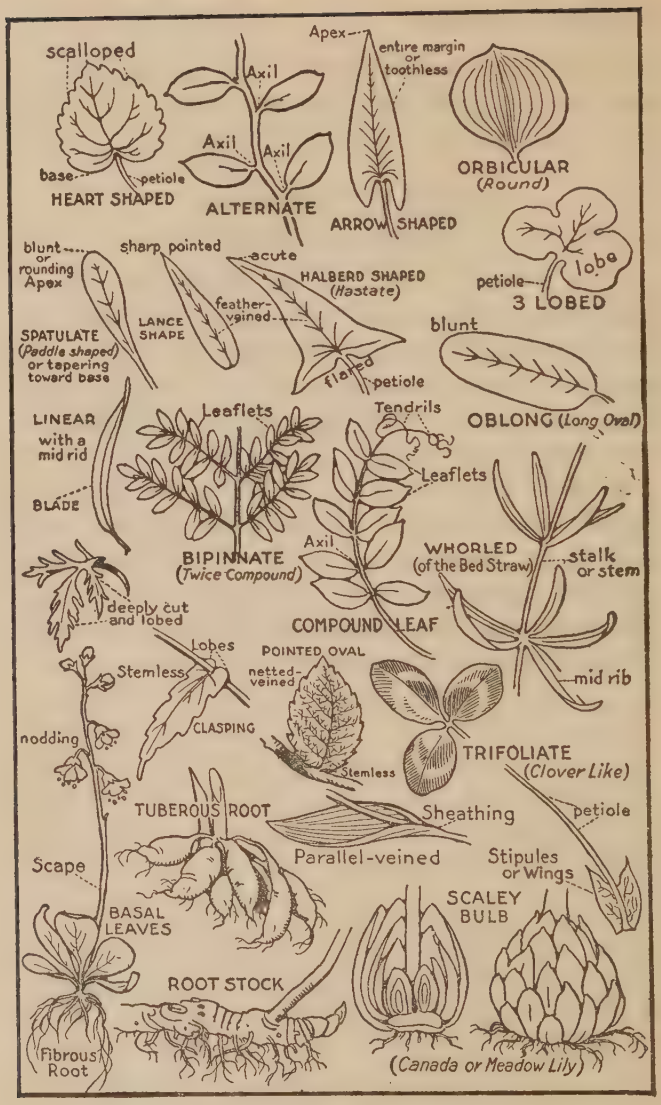
There is no mistaking the Common Rattlesnake-weed when you find the small rosette of purple-veined leaves. That they have an uncanny, snaky something or another about them cannot be denied, and it is probably all due to their decorative veinings. I have heard time and again that this leaf was used as a remedy for snake bites, but never have succeeded in meeting anyone who had actually used it for such purpose. The juice is supposed by some people to have the power of removing warts. The long, slender stalk is often solitary, and rises out of the leafy tuft, from one to three feet in height. It is smooth and leafless, or occasionally with one or two leaves seated upon it. The foot leaves are long oval, with a pointed tip, and taper toward the base. The wide, flat midrib is hairy on the under side. The usually toothless margins are fringed with fine hairs, and the colour is light green. The small, light yellow flowers are somewhat like those of the Dandelion, but the disc is more ragged, fewer-flowered and less dense. The strap-shaped florets have a finely notched, square tip, and from fifteen to forty are set in a small, light green cup. They are set on the tips of the forks, and form a loose,

scrawly, few-flowered cluster. They are found in dry, open, rocky woods and thickets from May to October, from Georgia, Kentucky, and Nebraska to Canada.

HAIRY HAWKWEED

Hieràcium Gronòvii.

This slender, wand-like Hawkweed grows from one to three feet in height. The stem is stiff, hairy, and sometimes nearly leafless. The long oval basal leaves are either entire or toothed, and are usually narrowed into short stems. The upper leaves are oblong or oval, and all are rough, hairy, and strongly ribbed. The stalk forks at the top to receive the numerous yellow, Dandelion-like flowers. The flowers open only in the bright sun, and wilt immediately when plucked. They are found from July to September, in dry locations, from Florida and Louisiana to Massachusetts, Illinois and Ontario.



LEAF AND ROOT FORMS

Section IV

WHITE AND GREENISH FLOWERS

BROAD-LEAVED ARROWHEAD

Sagittària latifòlia. Water-plantain Family.

THE Arrowhead is a very decorative and common, mud-loving, white-flowered aquatic perennial, blooming from July to September, in shallow water along the margins of slow streams, ponds, and marshes. The exceedingly variable leaves are generally arrow-shaped, sometimes sharp and narrow, or again blunt and broad. They are thick, spongy, and rubbery, and have long stems. Others, which are entirely submerged under the water, are long and grass-like. The many-angled, milky-juiced, flowering stalk is either stout or slender, and grows from a few inches to several feet in height. The flowers have three prominent, rounded, spreading, white petals with either a central cluster of golden yellow stamens or a large, green pistil. They are of two sorts, male and female, and may or may not occur together on the same plant. In the latter case, the pretty male, or yellow-centred, stamen-bearing flowers are borne on the upper part of the stalk, while the female or green-centred, pistil-bearing flowers occur below them. They are arranged in whorls of three, on short stems, at regular distances along the stalk. The calyx has three green parts. The Arrowhead ranges from Mexico far into the British Possessions, and from the Atlantic to the Pacific. *S. pubescens* is a robust, broad leaved variety,

with a shorter calyx, and is more or less hairy. It is found from Ontario to New Jersey, Florida and Alabama.

AMERICAN WHITE HELLEBORE. INDIAN POKE. ITCH-WEED

Viràtrum vîride. Lily Family.

In rich, moist woods, swamps, and wet meadows, and usually associated with the Skunk Cabbage and Marsh Marigold, the rank-growing foliage of the Hellebore flourishes with a tropical vigorousness. The stout, leafy stalk rises from two to eight feet in height, and is round smooth, and green. The large, hairy, bright green leaves are deeply pleated with numerous parallel ribs, and are broadly oval, and tapering at the apex. They clasp the stalk, and graduate in size as they approach the top. The lower leaves are often a foot long. The numerous, unattractive, dull yellowish-green flowers have six spreading, petal-like parts and six short, curved stamens. They are densely crowded on rather open, branching terminal spikes, and each flower is guarded with a small leaflet. The rootstock is long and thick with many fleshy, fibrous rootlets. It has a disagreeable odour, and is very poisonous, but possesses important medicinal qualities. The stiff, spear-like shoots are very noticeable in the early spring. The species is also found along mountain streams from May to July, and ranges from Alaska and the British Possessions south to Minnesota, Tennessee and Georgia. Five

different species of Viratrum are found growing within the United States.

STAR OF BETHLEHEM. TEN O'CLOCK

Ornithógalum umbellàtum. Lily Family.

An extremely dainty plant with exquisite white, starry flowers which decorate our moist fields and meadows during May and June from New England to Virginia, and become very abundant in favourable localities. The popular name has long been applied to this pretty Lily which is thought to resemble the hallowed star in the East that guided the Wise Men to the place in Bethlehem where Jesus was born. The slender stalk branches at the top only for the solitary flowers, and grows from four to twelve inches high. The long narrow, fleshy leaves rise in a tuft from a thick, egg-shaped bulb. They have a whitish midvein, and are dark green in colour. The flowers open only in the sunshine. They are five-parted, spreading, and star-like. Each of the petal-like parts is pure white with delicate veinings, and has a wide, green stripe on the outside, which resembles a separate sepal or bract. The stamens are flattened. This charming species has become naturalized from Europe, and has escaped from gardens.

WILD SPIKENARD. FALSE SOLOMON'S SEAL. SOLOMON'S ZIGZAG

Smilacìna racemòsa. Lily Family.

On account of the similarity of its foliage, this species is frequently confused with the True Solomon's

Seal, with which it is often found growing. It is easily distinguished, however, by the terminal arrangement of its plumy flowers and red berries, while the latter species bears its bell-shaped flowers distributed in pairs along the stalk and its berries are black. The smooth, leafy, and slightly zigzagged stalk grows from one to three feet high, from a rather thick, fleshy rootstock. The broad, lance-shaped, and strongly ribbed leaves are stemless, or nearly so, and alternate at the angles of the stalk. The margins are toothless, but are fringed with fine hairs. The surface, particularly beneath, is also hairy. The small, white or greenish-white flowers are fragrant, and have six spreading, petal-like parts, six pale, yellow-tipped stamens, and a thick pistil. These are densely crowded in a pyramid-shaped spike at the end of the stalk, which is often gracefully curved. The flowers are succeeded by the aromatic, purple-specked berries, which are at first green, then yellow-white, and finally pale red. The plant blossoms from May to July, and is found in moist woods and thickets, from Nova Scotia to Georgia, and westward to Missouri, Arizona, and British Columbia.

FALSE LILY OF THE VALLEY. TWO-LEAVED SOLOMON'S SEAL

Maiánthemum canadénse. Lily Family.

A common and familiar little zigzag-stemmed, woodland plant, bearing usually two leaves or often only one, and found generally about the base of stumps

CANADA GOLDEN-ROD. Solidago canadensis

BLACK-EYED SUSAN. Rudbeckia hirta

and trees in moist woods and thickets, where it blossoms from May to July. The slender stalk is round and grooved, and grows from two to seven inches in height. The alternating, broad-oval leaves have a short-tipped, blunt point and are heart-shaped with a narrow slit at the base where they are either clasping or short-stemmed. The surface is smooth and shining, and the veinings are parallel. They are yellowish-green in colour, becoming stained and rusty with age. The tiny, fragrant, waxy-white flower has four spreading petal-like parts, and four cream-tipped stamens. They are crowded on a short terminal spike, and are followed with round, grayish or creamy white red-speckled berries, which finally become dark, shining, ruby red in colour. There is not the slightest resemblance to the Lily of the Valley of our gardens, and this name is therefore misleading. This rather dainty species occurs in scattered or dense colonies from Canada to North Carolina, Iowa, and South Dakota.

HAIRY, TRUE OR TWIN-FLOWERED SOLOMON'S SEAL

Polygonátum biflòrum. Lily Family.

A common and graceful species growing in woods and thickets in company with the Wild Spikenard, and frequently confused with it. The upper part of the slender, leafy, unbranched stalk is often angular and curved. It rises from eight inches to three feet in height. The toothless, oval, pointed or lance-shaped leaves are alternately on the stalk, and are smooth above

and paler and hairy beneath. The white or yellowish-green, bell-shaped flowers are usually arranged in pairs, and droop and nod beneath the leaves on fine stems springing from the leaf axils. The tubular flower is six lobed at the opening, but is not spreading, and has six stamens and a pistil. The berry is round, pulpy, and blue-black in colour. The horizontal rootstock is thick and jointed. This plant was formerly employed in healing bruises, particularly those about the eyes, and for wounds and skin eruptions. It was also highly esteemed as a cosmetic. The berries are said to be poisonous. The species blossoms from April to July in woods and thickets, from New Brunswick to Michigan, and south to Florida and West Virginia.

LARGE FLOWERED WAKE-ROBIN

Trillium grandiflorum. Lily Family.

The Trilliums rank among the foremost of our native woodland wild flowers, and they possess an individuality that compares favourably with the exclusive traits of the Arbutus, the Gentians, the Lobelias, and the Orchids. This beautiful, large, white-flowered species is one of the choicest and best known of its family. It is found during May and June, in damp, rich woods, and grows from eight to eighteen inches high. The single, smooth, stout, juicy stalk terminates with a whorl of three large, handsome, broadly egg-shaped, triple-ribbed leaves which taper suddenly at the apex and are narrowed to a stemless base. They are loose-textured, prominently

veined, and toothless. The large, waxy-white, solitary flower is borne on a short stem that springs upright from the centre of the leaves. The three thin, broad, strongly veined, and long-pointed petals are larger and much longer than the three spreading, green, lance-shaped sepals, and they turn outward with a large graceful curve. They are scentless, and as they age they become pink. The single berry is nearly black when matured. This showy-flowered Trillium ranges from Canada to Florida, and west to Minnesota and Missouri.

NODDING WAKE-ROBIN

Trillium cernuum. Lily Family.

The fragrant white or pink flower of this common Trillium droops on its short, curving stem until it nods, usually below the whorl of very broad leaves, where it is quite hidden from view. The stalk is rather slender, and grows from eight to twenty inches high, in the shade of rich, moist woods. The petals of the rather large flower are tapering and wavy-edged, and are rolled prettily backward. The calyx is light green, and the nodding, egg-shaped fruit is red-purple when ripe. The flower blossoms from April to June and may be found from Nova Scotia to Ontario, and Minnesota and south to Georgia and Missouri.

PAINTED TRILLIUM, OR WAKE-ROBIN

Trillium undulatum. Lily Family.

The beautiful Painted Trillium is one of the commonest and most striking of its clan. It loves

to dwell beside cool, trickling brooklets, and in shady dells in rich, damp woods where it blossoms during May and June. The rather slender solitary green stalk is smooth and naked and grows from eight inches to sometimes two feet in height The large, egg-shaped leaves have a long, tapering point, and a rounded base. They have short stems and are triple-veined. The thin, widely spreading, waxy-white, wavy-edged petals are painted with purple stripes at the base. The green sepals are narrow, lance-shaped. The solitary flower is set on a short stem and is often slightly drooped. The egg-shaped fruit is shining bright red when ripe. This plant ranges from Nova Scotia, Ontario, and Wisconsin to Georgia and Missouri.

STAR-GRASS. COLIC-ROOT

Áletris farinòsa. Lily Family.

A bitter, fibrous-rooted, yellow-flowered perennial, which is sought annually in some localities by herb gatherers, on account of its reputed value as a remedy for colic, rheumatism and as a general tonic. The slender flower stalk grows from one and a half to three feet in height, from a spreading cluster of thin, lance-shaped, pale yellowish-green basal leaves. The numerous small, white or yellowish tubular flowers are faintly fragrant and form a dense, slender, wand-like spike. The six stamens are tipped with orange. Colic-root is found in dry, sandy fields and along roadsides from May to July and ranges from

Maine, Ontario, and Minnesota, south to Florida and Tennessee.

SHOWY LADY'S SLIPPER

Cypripèdium hirsùtum. Orchid Family.

This magnificent, fragrant Orchid has been considered the most beautiful of the *Cypripediums* and some enthusiasts have even thought that it should be crowned the queen of American wild flowers. It is a shy, chaste beauty, and keeps aloof, hidden in remote swamps and rich, low, mossy woods, where its incomparable charm and subtle grace regale the woods with their exquisite splendour. The common name should not be confused with that of the earlier-blooming Showy Orchis, which bears a spike of several flowers. The Showy Lady's Slipper raises its stout, leafy, and downy stalk a foot or two high, and may be found from June to September. The large, downy, wavy-edged, pointed oval leaves are alternating and clasping, and resemble the foliage of the False Hellebore. The large, white, balloon-like floral pouch is shaped something like an Indian moccasin, and is softly stained on the upper side with pinkish purple spots and stripes. The broad, spreading sepals and petals are pure white, and are flared with such a vigorous, animated gesture that one fancies that they are almost trying to speak. Usually one, and frequently two or three flowers hang from the summit of the stalk. The root is used as a nerve tonic, and the fine hairs with which the plant is covered

yield a poisonous oil which sometimes irritates the skin. This species ranges from Nova Scotia to Ontario, and Minnesota, and south to Georgia.

LARGE ROUND-LEAVED ORCHIS

Habenària orbiculàta. Orchid Family.

A pair of exceedingly large, shining, circular leaves with a silvery underside and lying flat upon the ground, are pretty certain means of identifying this peculiar Orchid. It frequents deep, rich woods, preferably evergreen, which are carpeted with pine or hemlock needles, where it raises its stout stalk a foot or two high, and blossoms gaily during July and August. From ten to twenty or more white flowers are loosely clustered in a terminal spike. The short, upper sepal is rounded, and the two narrower side ones are spreading. Two petals are smaller, sharply pointed and arching, while the long, narrow, and drooping white one, which forms the pointed, curving lip, is prolonged in a long, slender, curving spur. The great, opposite spreading leaves are many-ribbed, and the stalk has several small, alternating bracts or leaflets set along its length. This Orchid is rather uncommon, and is found in the hilly or mountainous regions, from the British Possessions south to North Carolina and Minnesota.

WHITE FRINGED ORCHIS

Habenària blephariglóttis. Orchid Family.

This refined and elegant beauty raises her stately white head above the surrounding grasses, and, after

the manner of the powdered Colonial dames of old, fascinates us with her incomparable grace and loveliness as she executes a proud courtsey to each passing breeze. The general description of the stalk, leaves and blossoms of her golden flowered sister, the Yellow Fringed Orchis, applies very generally to the above species. The present Orchid, however, is inclined to be more delicate and somewhat smaller in all parts. It is also rather more common, and the soft, feathery flowers blossom a few days earlier where the two bloom side by side, as they very frequently do. The White Fringed Orchis blossoms during July and August, in bogs and swamps, from Newfoundland to Minnesota, and south to Florida and Mississippi.

NODDING LADIES' TRESSES

Spiránthes cérnua. Orchid Family.

Throughout the glorious autumn, when the summer verdure gradually assumes the most beautiful variations of yellow, scarlet, and brown, and after most of our wild flowers have ceased their floral activities, this latest blooming Orchid, like the lovely Blue Gentian, suddenly realizes its sense of duty and blossoms as gaily as though the birds were just returning with the spring. It is also one of the very commonest of its family. It grows from six inches to two feet in height, in wet meadows and grassy swamps. Several long, narrow, lance-shaped leaves spring from the base of the stalk, but usually disappear before the flowering season. Those on the upper stalk are much reduced

and bract-like. The roots are slender and fleshy. The tiny, waxy white or yellowish flowers are fragrant and spurless. And together with short, semi-circular bracts, they are gathered into crowded rows of threes which, with a peculiar, ropy, spiral growth, form a remarkably twisted terminal spike. The two side sepals are free and spreading, while the upper one forms an arch with the petals. The oblong lip has a broad, rounded, crinkle-edged apex. This pretty little Orchid blossoms abundantly from August to October, and ranges from Florida to Nova Scotia, and west to Ontario, Minnesota, South Dakota, New Mexico, and Louisiana.

DOWNY RATTLESNAKE PLANTAIN

Epipáctis pubéscens. Orchid Family.

The familiar rosettes of white-veined, blue-green foliage of this common Orchid are spread close to the ground, in dry and usually evergreen woods, where they occur in distinct patches, and are really more decorative than their flowers, which blossom during July and August. The short flower stalk is covered with thick, hairy down, and rises from the centre of the leaves some six to twenty inches. It bears several small, alternating, and clasping scale-like leaflets. The thick, pointed-oval, evergreen leaves are softly downy, the prominent ribs and veins are white, and the edges are wavy. The thick, fleshy root is creeping in habit. The small, pouched, greenish white flowers are crowded into a slender, terminal, clubbed spike, and are attended with short, pointed,

curving leaflets or bracts. Two of the tiny sepals flare at the sides, and the third or upper one unites with the petals to form a hood. The lip curves into a little sac with a sharp tip. The leaves were formerly used by the Indians as an antidote for snake bites, and, according to Pursh, they were widely known as a certain cure for hydrophobia. This species ranges from Florida and Tennessee, north to Minnesota, Ontario, and Newfoundland.

POKE. SCOKE. PIGEON-BERRY. GARGET. INK-BERRY

Phytolácca decándra. Pokeweed Family.

This tall, smooth, strong-smelling, stout and branching herb grows from four to twelve feet high from a large, poisonous, perennial root. It is a most familiar plant during autumn, when its round, purple-stained stalk, and conspicuous, long, drooping clusters of rich, dark crimson juiced and shining fruit attract our attention along roadsides and fence rows and in meadow corners. The large, tapering, oval leaves have strong midribs and toothless margins, and alternate upon the stalk with short stems. The small, squatty, five-parted, green-centred, pink-tinted, white flowers are gathered in long, terminal, clustering, purple stemmed spikes. The petal-like parts are really coloured sepals which take the place of a corolla. In the early spring the young shoots are much used as food and are boiled and eaten like asparagus. For this purpose they should be thoroughly cooked and not cut too close to the root, otherwise they will produce

serious results. An ointment made from the Pokeweed is used in the treatment of ringworm and rheumatism, and also for relieving itching and inflammation of the eyes. Children like to make red ink from the berries. The word "Poke" is said to be derived from *pocan*, an Indian name for any plant yielding a red or yellow dye. During the campaign of President Polk the leaves of the Pokeweed were worn by his admirers. Although the berries are greatly relished by birds, children should be warned not to eat them. The Pigeon-berry is common from June to October. It ranges from Canada to the Gulf States.

LONG-LEAVED STITCHWORT

Stellària longifòlia. Pink Family.

A taller, freely branching, rough-angled species, having small, narrow, grass-like leaves and numerous slightly larger flowers than the following. The lance-shaped sepals do not extend beyond the petals and their ten white stamens. The stem is weak and depends upon immediate vegetation for its support. It blossoms from May to July, and flourishes in low meadows and swamps. It ranges from Nova Scotia to Alaska, and south to Kentucky, Louisiana, the Rocky Mountain region, and British Columbia.

COMMON CHICKWEED

Stellària mèdia. Pink Family.

Chickweed? Why, that 's good for birds! Almost everyone will tell you that, the wide world over. Almost

everyone who owns a pet canary has fed it sprigs of the buds and flowers of the Chickweed. It is one of the very commonest of our dooryard neighbours. Tiny and insignificant to be sure, but this Speedwell is always at home, twelve months of the year. Its slender, leafy, branching stem spreads over the ground in tufts. It is green and smooth, excepting a line of very fine hairs along one side. The small, oval, pointed leaves have a smooth surface and an entire margin. They grow in pairs and the lower ones are short stemmed. Five very deeply notched white petals appear at first sight to be a double quantity of very narrow ones. The five parts of the green calyx are much larger and extend considerably beyond the petals. The stamens are very fine but noticeable. The Chickweed's flowers do not open fully on cloudy days. It is found almost everywhere throughout the northern hemisphere in meadows, and woods, and waste places generally.

FIELD CHICKWEED

Cerástium arvénse. Pink Family.

A densely tufted perennial, more or less erect in growth, and often covered with minute hairs. It is sparingly branched and grows from four to ten inches high. The starry white flowers are much larger than those of the two preceding species, and have ten yellowish stamens. They are loosely clustered, and the five petals are nicked at the apex into two rounding lobes. The calyx is less than half the length of the petals. The leaves are small and grass-like and occur

sparingly in alternating pairs upon the stalk. This Chickweed is found in dry, rocky places from Labrador to Alaska, and south to Georgia, Missouri, Nevada and California. It blossoms from April to July.

STARRY CAMPION

Silène stellàta. Pink Family.

You can tell at once by their swollen joints that the Campions are related to the Pink family. The prominent calyx is another tell-tale feature. The erect, leafy, light green stem is roughened with fine hairs and grows from two to three and a half feet high. The long, oval, yellow green leaf is tapered at the point. The surface is rough, and the margin is fringed with fine hairs. The leaves are arranged in whorls of four with occasional odd pairs near the top or base of the stalk. The light green, five-toothed calyx is sticky, inflated, and bell-shaped. The stem and calyx are stained with red. The beautiful, white, star-shaped flowers are prettily grouped in a large, open, terminal cluster. The five delicate petals are deeply fringed and clawed, and ten long stamens extend beyond the corolla. The Starry Campion is a conspicuous plant, unfolding its petals in the evening and closing them in the bright sun. It dwells commonly along woodland slopes from Massachusetts to Nebraska and southward to South Carolina and Arkansas during June, July and August. The generic name *Silene* is derived from the Greek *seilanos*, a mythical god, described as being covered with foam; connected with *sialon*, or saliva,

referring to the stickiness of the calyx. The peculiar markings of the root, under the bark, suggest the skin of a snake, and it has been called Furman's Snakeroot in honour of an Indian doctor who first employed it as an antidote for snake bites. The calyx is a natural "tanglefoot," and small insects are frequently found stuck fast to its surface. This peculiarity prompted the English name, Catch-fly.

BLADDER CAMPION. BEHEN. COW-BELL. SPATTERING, OR FROTHY POPPY

Silène latifolia. Pink Family.

This pretty, delicate native of Europe and Asia was introduced into the vicinity of Boston, and has become very common in fields and roadsides from New Brunswick and Ontario southward to New Jersey, Illinois, and Iowa, throughout the summer. The smooth, leafy perennial stalk branches at the base, and grows from six to eighteen inches high. The oblong or lance-shaped, dark green leaves occur in alternate pairs, and are variable in size. They are acutely pointed, and the lower ones are often paddle shaped. The white flowers are arranged in loose, often drooping clusters, and are fragrant only at night. The five clawed petals are deeply cleft and wheel shaped. Ten long stamens extend beyond the corolla. The strongly veined, five toothed, pale green calyx is greatly swollen and strongly hints its common name. It is also the most distinguishing feature of the flower. In some parts of England, country people cook and eat the young shoots of this

plant as a substitute for asparagus. It is said to have a flavour much like green peas.

SPRING BEAUTY. CLAYTONIA

Claytònia virgínica. Purslane Family.

Ever since the beginning of things there has been a wide range of temperament exhibited among the beauties of creation, and it is no less pronounced among flowers than it is peculiar to those who begin to betray it at sweet sixteen. So here 's to the Spring Beauty, may her tribe increase! Although apparently indifferent to the cold blasts of March and early April, and bold in her effort to be first among the débutantes at Nature's earliest social gathering, she becomes extremely sensitive if her whims happen to be opposed. She loves the glorious sun and courts and courtseys before his radiations with all the charming affectation her flushed, wide-spreading petals can command. She blushes as she greets him from rising to setting, turning as he travels from east to west, and then back again each morning to repeat the operation when he returns. But let him disappoint her, and she immediately pouts and droops, and refuses to be consoled until the clouds break away, and he reappears. If you chance to pluck this dainty miss, she promptly sulks, and no amount of coaxing will prevail to change her hopeless mood, without the endearing rays of her affinity. So much for the sun's influence upon the temperament of the Spring Beauty. During March, April, and May the starry flowers of the Claytonia

are everywhere conspicuous in thin, moist woods, where they grow abundantly. They are found singly, and in thick clusters, but generally in colonies which are scattered over a considerable area, and slope after slope is often whitened with masses of their delicate blossoms. The single, slender, and juicy stalk springs from a small, deeply seated, tuberous root. It grows from six to twelve inches high, and is occasionally branched. It is light green in colour, and is stained with red. About midway from the ground, it bears two long, narrow, dark green, grass-like leaves which taper into short stems and unite oppositely with the stalk. They have a distinct midrib, a smooth edge, and are narrowed to a point. The stem and leaves are thick and rubbery in texture, and the entire plant becomes limp and forlorn almost as soon as it is picked. The weak stalk usually assumes a crooked or serpentine growth, and is frequently sprawled along the ground. It is rather tough, and is more apt to break at the root than above the ground when pulled. The newly exposed part when pulled up is quite white, and tapers toward the root. The nodding buds, which are enclosed in a two-parted calyx, are borne on short, slender stems in a loose terminal cluster, and open a few at a time. The flowers are less than an inch broad when fully expanded, and are known, botanically, as secund flowers — that is, they are all borne on one side of the stem. The five oval, fine-textured petals are notched at the apex. They are white with fine veinings of pink, or often a beautiful pink with darker

pink lines. The petals are slightly united at the base, and near this point the veinings terminate with small dashes of yellow. There are five white stamens with pink anthers attached to the base of the petals. As the petals expand the stamens remain erect around the pistil, adding greatly to the effectiveness of the blossom. As the flower matures the stamens droop outward toward the petals and the tip of the pistil opens with three little hooks. There is a faint fragrance to the flowers when they first open, but it is not always constant. The Claytonia was named for an early American botanist, John Clayton of Virginia, who collected many plants and sent them to Gronovius, the editor of the "Flora Virginica." The Spring Beauty is found from Nova Scotia to the Northwest Territory and southward to Georgia and Texas. There is very little chance of confusing this flower with those of either of the Anemones. Just remember that the Spring Beauty has very long and narrow leaves shaped like grass blades, and the stems of the Anemones are thin and wiry.

SWEET-SCENTED WHITE WATER LILY. POND LILY. WATER NYMPH

Castàlia odoràta. Water Lily Family.

There is scarcely another flower that loses so much of its spectacular charm and magnificent splendour as the beautiful Water Lily when it is removed from its natural element. The flowers certainly present a saddened and bedraggled appearance when they are

TANSY. BITTER BUTTONS. Tanacetum vulgare

RATTLESNAKE-WEED. HAWKWEED. Hieracium venosum

being peddled on our city streets by venders who stand stupidly in front of the theatres and larger department stores, grasping a bunch of these handsome, drooped buds and flowers by the neck as if they were so many shoestrings, and with about as much æsthetic conception! There is but one encouraging feature about this altogether too familiar sight, and that is the noticeable absence of patronage. If everyone should refrain from purchasing wild flowers from street hawkers it would discourage the peddling practice quicker than any other method, and consequently prolong their existence, which has already been threatened in many instances with extinction. The Water Lily is of high-born parentage, and enjoys the proud distinction of kinship to the sacred Lotus of the Orient. The Lotus is connected with the birth of the Hindoo deity, and has always been symbolic of the Buddha faith, to which something like five hundred million souls bow allegiance. The Hindoos use the Lotus in their funeral ceremonies, and also to decorate their temples and monuments. It is the national flower of Siam. Japanese artists use it extensively for designing and decorating, and their craftsmen reproduce it in ivory, gold and bronze. Lotus petals were found in the tomb of Rameses II. in 1881, where they had reposed for over three thousand years. During the Roman period, the Egyptians cultivated the Lotus along the River Nile for food. The roots were dried in the sun, and then pounded into flour. There is a superstition among the Wallachians, in Roumania,

that every flower possesses a soul, and that the Water Lily sits in solemn judgment at the gates of Paradise, demanding of each blossom a strict accounting as to the disposition made of its odour. Along some parts of the Rhine the natives chant magic verses while gathering Water Lilies, which, they believe, will keep away witches. A pretty Lenape Indian legend records the origin of the flower in a falling star that upon striking the water changed into a Water Lily. The Water Nymph gets its name from Nympha, a nature goddess of Greek and Roman mythology. This wonderful family includes the gigantic Royal Water Lily, *Victoria regia*, of Brazil, which has the largest flower in the world, and was named by Dr. Lindley in honour of Queen Victoria in 1837. Some of these flowers measure a foot and a half in diameter, and their monstrous leaves are often six or seven feet broad and are capable of bearing the weight of a man standing thereon. Thoreau regarded the White Water Lily as "the queen of river flowers." He might have gone further and said, "queen of our waters," for few flowers are held in higher esteem. They seem to lend a sort of lasting enchantment to every outing, brief or extended, and almost everybody can associate one or more pleasant memories with them. How I have enjoyed the precious moments on several occasions when it was my privilege to watch the deer feeding on the "lily pads" near our Adirondack camp! No other experience in outdoor life can compare favourably with it: the Water Lilies studding the thickly padded

surface of the inlet; the crisp, invigorating, balsam-laden air; the wild, tangled background of gaunt, scraggly trees and stumps, and the deer — I cannot adequately describe it; no one can. Often I have let my canoe drift quietly near these same "spring holes" where the deer fed, while I sought to lure, with tiny flies, the speckled trout that also loved the fascination and seclusion of the captivating Water Lilies and their "pads." We never plucked the blossoms, for they were our daily companions. The large, attractive flowers float majestically upon the surface of the water in a field of waxy-green leaves, and exhale an exquisite fragrance. Their numerous pointed oblong petals are deeply hollowed. Their texture is firm, and their colour is a beautiful white, sometimes tinged with pink. They are arranged alternately in several rows and finally graduate toward the centre into many pure yellow stamens. Their four dark green sepals are shaped like the large petals, and are lined with white or pinkish white. The innermost stamens are very slender and bear long anthers, while those intermediate with the petals become broader with shortened tips. The pistil is compound with radiating and projecting stigmas. The flowers are from three to five and a half inches broad. They open at sunrise, and close toward noon, excepting perhaps on cloudy days. As they fade, they are drawn beneath the surface of the water, where the seeds ripen. The large, floating leaf is from four to twelve inches in diameter, and has a toothless margin. The upper sur-

face is smooth, shiny and rich green, but the underside is more or less hairy and reddish in colour. It is shaped almost like a large, rounded horseshoe, and is cleft at the base with the tip of the divisions slightly flaring and pointed. The texture is firm and tough. The flower and leaves or "pads" are borne on long, slender, round, rubbery stems. These are red in colour and have four main air canals. They rise to the surface of the water from long, thick, horizontal, and occasionally branching perennial rootstocks, which are said to have some medicinal properties. The Water Lily is found in clear waters of lakes and streams from June to September, and it ranges from the Gulf States northward to Manitoba and Newfoundland.

EARLY MEADOW RUE

Thalictrum dioicum. Crowfoot Family.

This is a smaller species of the Meadow Rue, and it grows from one to two feet high in open woods and along rocky hillsides, during April and May, from Labrador to Alabama, and westward to Missouri. It is slender and branching, and the thin, slightly drooping leaflets are generally formed in groups of three. They are broader and more rounding than those of the Tall species, and their margins are partly scalloped. The staminate and pistillate flowers are borne on separate plants and contrast noticeably with each other. The pretty, tasselled blossoms of the former have many long, brown-tipped, pale green stamens. The pale green pistillate flowers are less conspicuous, with their

four or more pistils. The flowers have from three to five petal-like sepals. The leaf and flower stems are thin and delicate, and contribute to the plant's daintiness.

The Purplish Meadow Rue, *T. revolutum*, flourishes between the Early and the Tall species. It grows from one to seven feet high in dry, rocky woodlands, and along river banks from Nova Scotia to Florida, and westward to Arizona, during June, July and August. The stem is often stained with purple, and the rather large, thick, dark green leaves are waxy beneath, have three notches and are more or less hairy to the touch. The flowers are tinged with purple. The plant emits a heavy odour.

TALL MEADOW RUE

Thalictrum polýgamum. Crowfoot Family.

During midsummer when swampy, open woods and low, wet meadows are overrun with the rank luxuriant growth of vegetation peculiar to such localities, the Tall Meadow Rue will be found in all its glory, towering head and shoulders triumphantly above the tangled, struggling mass. And above them all, it will continue to hold its proud head, whether its ambitious companions grow three feet or a dozen feet high. What a noble lesson it teaches discontented mortals to make the best of surrounding conditions, and to be ever on the alert to keep just ahead of every competitor, regardless of his pace. If this were not the case with the Meadow Rue, it would soon become lost in the struggle, and

unless it could change its mode of living, it would soon become extinct. Such is the law governing the survival of the fittest.

The Tall Meadow Rue is noted for its beautiful, fern-like and feathery flowers which grow in great profusion. It is open and branching. and its general appearance is loose and delicate. The compound leaves are comparatively small for the size of the plant, and remind one a little of the Maiden-hair Fern. The variable, rounding, wedge-shaped leaflets are arranged in groups of three or five, and three or five of these groups are again arranged to form the triangulated outline of the complete leaf, which occurs alternately upon the stalk. The outline of the leaflets is entire excepting the ends, which are notched into pointed or rounded lobes. The centre leaflet of each group is larger than the one occurring on either side of it. The colour is a cool, medium green above, and of a lighter shade on the under side. The texture is firm and rather thin, and the surface is smooth and lustreless. The under side is minutely hairy and shows a fine network of veins. The stalk is rather stout, finely grooved, and round, and its colour is light green, stained with purple near the joints. The delicate, fairy-like flowers are arranged loosely in large, fluffy clusters and their appearance is at once attractive and pleasing. They have no petals, but four or five early falling petal-like sepals act for a short time in their place. The white, hair-like, green tipped stamens are very numerous and expand into pretty, fuzzy, starry, and delicately scented balls.

The pistils number from four to ten. Botanists find a particular interest in the Tall Meadow Rue because both complete and imperfect flowers occur on different as well as the same plant. A complete or perfect flower, by the way, is one having both stamens (male) and pistils (female) and producing seeds. An incomplete or imperfect flower lacks either the stamens or the pistils. Flowers bearing stamens only are known as staminate or male flowers, and those bearing pistils only are known as pistillate or female flowers. The Tall Meadow Rue may be found from June to September, from Labrador and Quebec to Florida and westward to Ohio.

RUE ANEMONE

Anemonélla thalictroìdes. Crowfoot Family.

When one is just forming an acquaintance with the Wood and the Rue Anemones, it frequently happens that the names of the two flowers become confused in the mind, and one finds it bothersome to determine at sight which is which. It is easy, however to memorize

Wood — one, Rue — two,
Wood — one, Rue — two,

and to fix in the mind that the Wood Anemone has *one* flower and *one* root stalk, hence *Wood-one;* while the Rue Anemone has *two or more* flowers and *two or more* root parts, hence, *Rue — two.* But there is no reason in the wide, wide world to confuse the plants, although they exhibit similar traits, and the foregoing matter is intended merely for the purpose of keeping their names

mentally distinct. This will be better appreciated when it is considered that both species blossom at about the same time, and often grow side by side. The most striking difference between the Wood and Rue Anemone is found in the roots. The former has a thick, horizontal root stock, while the roots of the latter are formed of a small group of little bulbs, resembling tiny sweet potatoes. The perfect, white flower is sometimes tinted with pink. It is smaller than those of its cousin, the Wind Flower, and in common with them, it soon perishes after being plucked. From five to ten, usually six, thin, oval, petal-like sepals form the flower, which varies from one-half to one inch in diameter. It has numerous short, yellow-tipped, white, hair-like stamens clustered around the several light green pistils in the centre. Two, or generally three, flowers are borne on slender stems in a cluster surrounded with a loose whorl of three-lobed, hair-stemmed leaflets, the stems of which unite on the stalk with those of the flowers. The centre flower opens first. The single, slender, erect stem is stained with red, and grows from four to nine inches high. The leaflets of the compound leaves, which appear after the flowers, are grouped into threes, and strongly resemble those of the Meadow Rue. Their texture is smooth and fine, medium or dark green in colour, or at first often tinged with red, and notched into two or three lobes on the rounding end. They are delicately veined and rise directly from the roots. The Rue Anemone is found commonly during the spring from March to June, in thin woods, through-

out the Eastern United States, west to Kansas and Minnesota, and sparingly in Ontario. The Latin name is derived from the Greek and means bound together.

WOOD ANEMONE. WIND FLOWER

Anemòne quinquefòlia. Crowfoot Family.

The Anemone has been an especially favoured flower in poetics from various sources of considerable antiquity. Its legendary and traditional significance has furnished an abundance of material for the dear old "once upon a time" stories which every grandmother loves to tell to boys and girls. When we think of the many windy days that we have during the early spring and consider that the Anemone blooms at the same time, and that their delicate stems make it possible for them to nod and sway to and fro, this way and that, with every breath of the wind, it is quite easy for us to understand why they received the very appropriate name of Wind Flower. Anemos, the wind god of the ancient Greeks, utilized the Wind Flower to announce his presence and to mark his course in the spring. Pliny concluded that without the grace of Anemos, the Wind Flower would not open, and to this famous Roman naturalist we trace its Latin name. From other sources, we learn that the wind, after blowing through these flowers, was at one time supposed to cause disease. Greek poets tell us that the Anemone originated in the tears dropped by Venus while she was grieving in the forest over the tragic death of her sweetheart, Adonis. Again, we are told that the Romans believed that the Wind Flower

possessed some mystic charm to ward off fever, and with this faith they sought the earliest flower of the year with more or less ceremony, and wore it attached to their clothing with much the same spirit probably as we of to-day seek and wear the four-leaf Clover. The Anemone is also an oriental dignitary, having some celestial significance among the Chinese, who make use of it in connection with their funeral rites, and it is referred to as the Death Flower. How times have changed! If any one dared to advance similar suppositions in the present era, they would, in all probability, be assailed with ridicule. Nevertheless, the Ancients, though lacking much definite botanical science, were undoubtedly sincere in their belief. The roots have some medicinal value, and one species furnishes a remedy for sore eyes. It is said that cattle which have fed on the Anemone have experienced poisonous symptoms therefrom. The Anemones follow closely upon the heels of the Hepaticas, Bloodroots, and Yellow Adder's Tongues in the floral contest for early blossoming in the springtime. They are commonly found in colonies along the margins of low woods, or in somewhat open places along hillsides where the soil is light and partially shaded, during April, May and June. They are often clustered near the base of old trees or stumps. The beautiful, delicate blossoms are faintly fragrant and measure an inch in diameter. Four to nine oval, petal-like sepals take the place of petals — they have no true petals — and in this respect they resemble the flowers of the Marsh Marigold. They

are pure white or sometimes tinted with pink or blue. Numerous cream-tipped stamens are clustered about the many small, green pistils in the centre of the slightly cupped solitary flower which is borne on the tip of the single, round, green stem, some four or more inches high. The stem is smooth and slender, and is usually stained with purple toward the base. It grows at right angles from an elongated, fleshy, horizontal rootstock —a storehouse of energy, which has so much to do with the early flowering of the plant. The delicately textured, medium green compound leaves are gathered on short stems in a whorl of three or sometimes five about the flower stem, midway between the blossom and the ground. The leaves are divided into three or five paddle-shaped parts or lobes, each of which is noticeably creased by a midrib. The centre lobes are much larger than those on either side. Their edges are irregularly notched. One or more basal leaves appear after the flowering season, rising directly from the root stock on long, individual stems. The entire plant is perfectly balanced, delicate in structure and graceful and charming in appearance. It ranges from Nova Scotia to Georgia and westward to the Rocky Mountains.

The Tall Anemone, or Thimble-weed, *A. virginiana*, is a much larger species growing singly in woods and meadows throughout the same general range as the Wind Flower, and occurring perhaps farther north, during June, July and August. It grows from two to three feet tall and is stout and branching, and

slightly hairy. The long-stemmed leaf is three-parted and the flower has five petal-like parts.

VIRGIN'S BOWER. TRAVELLER'S JOY. OLD MAN'S BEARD

Clématis virginiàna. Crowfoot family.

If, perchance, we should be called upon to suggest a new name for this beautiful climbing vine, it is doubtful if one more appropriate or descriptive than the Wild Festoon, or perhaps the Wood Garland, could be applied. Trailing gracefully over old rail fences and stone walls, or clinging affectionately to twig or branch or wayside shrubbery, the Traveller's Joy bids a welcome return to the prodigal, and God-speed to the journeyman. The word travel really means to toil or labour, and it is quite possible that the name as it is applied to the Virgin's Bower may have been Travailer's Joy from the plant's habit of constant endeavour to work its way, or *travail* from point to point as it progressed. Accordingly it might have been a cheerful inspiration to labourers, or travellers, who also may have rejoiced in its shade. Virgin's Bower is a name commonly applied to this vine, because of its habit of forming delightful shaded arches and fairy-like castles, wherein maidens would fain dwell. During the fall, when the seed clusters appear with long, curling, feathery, grayish plumes, their fancied resemblance to an Old Man's Beard is sufficient reason for the popular application of this name. The Clematis is a very old favourite with country people, and many a stiff, chro-

matic oil painting of the Father of our Country is annually decorated with its plumy clusters which are gathered in the fall. The Virgin's Bower is a long, slender, leafy vine, having a round, grooved, and tough, woody fibred, purple stained, green stalk. The small, white or greenish white flowers are imperfect, and the staminate and pistillate blossoms grow on separate plants. They do not possess true petals, but the four or five rounded, oblong, petal-like sepals appear in their stead. The numerous stamens and pistils are light green in colour, and the latter measure an inch in length. The expanded flowers are an inch broad and are delicately fragrant. They are borne on short, slender, green stems, in spreading clusters, at the end of the vine, and from the stalk at the leaf joints. The large, smooth, dark green leaves are set on long stems in pairs and the three, or rarely five, broad, oval, short-stemmed leaflets terminate acutely with long, tapered points. They are slightly indented at the base, and are prominently ribbed. The edge or margin is cut into a few sharp, coarse notches or lobes. During September and October the pistillate flowers are followed with the curled, silky, silvery plumes of withered styles, which are even more attractive than the flowers, and they give the vine its greatest charm of fluffy, festooning drapery. This handsome plant grows about a dozen feet in length and spreads along its ways, groping and clinging by its sensitive leaf stems, which support the vine by hooking on to, or even coiling spirally around whatever happens in their course to afford favourable

gripping places. Its favourite haunts are along river banks or moist, damp lanes, and in lowlands about waterways, where it may be found from July to October. It ranges from Georgia to Kansas, northward to Manitoba and Nova Scotia. *Clematis* is a name of Dioscorides, a Greek medical writer, for a climbing plant with long and lithe branches.

GOLDTHREAD. CANKER-ROOT

Cóptis trifòlia. Crowfoot Family.

There is no general rule that will enable everyday folks to recognize each wild flower by its common name at first sight. It will be found quite as necessary to depend upon the imagination and reasoning powers as the use of the eyes in this respect. It is true that as one becomes better acquainted with various species, he can usually tell by some characteristic or peculiarity to what family an individual belongs, just as we can distinguish the Chinaman by his "pig tail" and slanting eyes, or the African by his woolly hair and chocolate skin; and equally as well he can tell the manner and place in which they chose to live, even as diversified as that of the Esquimaux, Cliff Dweller, or Hottentot. Let us take, for example, the Wind Flower. This name might as well have been applied to the Hepatica or the Spring Beauty, or Dandelion, so far as the wind is concerned. On the other hand, the name Spring Beauty could with equal propriety be applied to the Wind Flower, Hepatica, or a host of other early flowers for that matter. We hear of a flower referred to as

the Bloodroot. The name is very suggestive and has real significance, but in our search to find it, we could hardly be expected to roam about pulling up every strange flower to see if its root is full of blood. It might just as well be called "bloodstem" as its leaf and flower stems have the same "bleeding" habit when they are plucked. Happily, however, many common names, such as Bloodroot, Cardinal Flower, Bluebell, or Wintergreen, really assist in their identification. And so we come upon the Goldthread. Hear the name alone and we might search in vain for this plant unless we happen to uproot it, but the instant we see the bright rootlets, we know why it received its name, and we shall not easily forget it. But imagine looking for wind in the Wind Flower, or for the wind exclusively where this Anemone grows, and for only one Spring Beauty when there are dozens of wild flowers equally deserving the same title. It is right here that scientific classification demands observance, and this subject is thus briefly introduced with the sincere hope that the reader will eventually become deeply interested in its study. The small, solitary, glossy-white flowers of the Goldthread appear from May to August in cool, moist, mossy woods and bogs from Maryland and Minnesota to Alaska. The prominent calyx might easily be mistaken for petals. The sepals are narrow and pointed, white in colour, with a yellowish base, and from five to seven in number. These petal-like sepals soon fall away. The five or six real petals are very small and inconspicuous and are easily confused with

the numerous stamens and pistils, from which they may be distinguished by their club-shaped, hollow-pointed ends. This low, perennial herb grows from three to five inches high. The shining, evergreen, fan-shaped leaves are prominently veined, and like the flowers, they are borne on long, slender stems rising directly from the root. They are compounded of three small, wedge-shaped, dark green leaflets having sharply notched edges. The roots, from which the common name is derived, are slender with numerous long, forked, bright yellow, thread-like parts. They are quite bitter to the taste, and yield a yellow dye. Country people make a tea of them, which is used as an invigorating spring tonic. In New England the steepings of the dried roots are used as a gargle for canker spots in the mouth and throat, and they are also chewed as a remedy for these affections. The scientific name *Coptis* is from the Greek, meaning to cut, and alludes to the margins of the leaves.

BLACK SNAKEROOT. BLACK COHOSH

Cimicífuga racemòsa. Crowfoot Family.

The attractive, feathery spikes of the Black Snakeroot emit a rank, offensive odour, and country people used to say that they were good for driving away bugs and flies from their rooms. For centuries the Indians regarded the thick, knotted root of this plant as being a certain cure for snake bites, and it was a very popular domestic remedy among their squaws. It was also used for relieving rheumatism, dropsy and hysteria,

LARGE-FLOWERED WAKE ROBIN. *Trillium grandiflorum*

PAINTED WAKE ROBIN. Trillium undulatum

and now furnishes a medicine for nervous affections. It is a slender, tall, stately, leafy stemmed plant, growing from three to eight feet high in shady and rocky woods, where it blossoms from June to August. The alternating, long-stemmed leaves are thrice compounded of thin, smooth, pointed-oblong, and deeply toothed or cleft leaflets. The terminal leaflet is often again divided. The stamens of the small white flowers are exceedingly numerous and give a very soft, downy appearance to the slender spike which forms the floral arrangement. This perennial herb is found from Maine and Ontario to Wisconsin, and south to Georgia and Missouri. The Latin name is derived from *cimex*, a bug, and *fugere*, to drive away.

COHOSH. WHITE BANEBERRY. HERB-CHRISTOPHER. RATTLESNAKE HERB

Actaèa álba. Crowfoot Family.

Slip through the thicket that skirts the country roadway and into the damp, shaded ravine or hillside where the Jack-in-the-Pulpit is capering during May, and the chances are, as you make your way through the sparse undergrowth, that you will unconsciously brush aside the large, soft leaves of the knee-high Cohosh. The large, loose, fluffy, oblong, and cylindrical mass of tiny, fuzzy flowers resemble a glass chimney or bottle-cleaner as much as anything. The small white flowers have from three to five petal-like sepals, that drop as they open, exposing from four to ten tiny, narrow, blunt, or claw-tipped petals which soon fall

away, leaving the numerous, longer, fine, hairlike, and white, yellow-tipped stamens expanded into small airy balls, each with its single pistil bearing a prominent, two lobed stigma. The flowers are borne on short stems which grow out from the main stem at right angles and with a deliberate gesture that gives the blossoms and the later appearing fruit a decidedly poised appearance. The clustered flowers open with almost one accord along the end of the long, pale green stalk. Their odour is coarse and unpleasant. The leaves are large, open, and of rather fine and soft texture with the veins showing effectively. They are dark green in colour and are more or less deeply cut into three distinct and acute lobes. They are arranged in threes and are compounded again, sometimes twice or three times. The margins are sharply notched and irregular. The green, leafy stem is small, round, grooved, and slender, and the leaflets are attached with or without short stems. The flower stem unites with the stalk at the junction of the leaf stems. The plant has a single, erect stalk branching near the top, and is a perennial. The most striking feature of the Cohosh appears during September in the form of short, plump, bean-like berries, pure white in colour and marked with a conspicuous, deep purple spot. The entire end of the flower stem, which bears the fruit, is bright scarlet in colour at this time. It is noticeably thick, and the entire effect is stiff and waxy. The berries are said to have some poisonous qualities. In Massachusetts, these berries are known as "Dolls'-eyes." The White

Baneberry is found during April, May and June, from Nova Scotia to Georgia and west to Missouri and British Columbia. *Actaea* is an ancient name of the Alder.

The Red Baneberry, *A. rùbra*, is a similar species, more common northward than the above, and having less pointed and more broadened leaves. Its principal difference appears in its oval, cherry-red berries which are borne on slender stems. It is found from New Jersey and Pennsylvania west to the Rocky Mountains and north to Nova Scotia.

MAY APPLE. MANDRAKE. WILD LEMON. HOG APPLE

Podophýllum peltàtum. Barberry Family.

The May Apple does not await the passing of April showers before preparing to attend May's annual floral festival. But with an air of seeming indifference and independence, as though borne of impatience, it boldly defies the rain with its handsome leaves arranged like a closed umbrella around its slender stalk and which gradually expand as they clear the ground. Excepting their bronzed-green colour, when they have just emerged from the earth, they have much the same appearance as a bit of oily rag after having been forced through a rifle barrel on the end of a cleaning rod. They are popularly known as Umbrella Plants by children who roam the woods in early spring, and they surely deserve this name. The wild Mandrake is an interesting perennial herb with a distinctive, cleancut, and well-balanced appearance. Its single, smooth,

round, stiff, fibrous stalk grows from twelve to eighteen inches high, from a long, running rootstock. It is pale green in colour, and its base is sheathed with a dry, tough casing. There are two sets of leaves, one of which, the larger, often measures a foot in diameter, and is borne on a long stem from a rootstcok which produces no flowers. These leaves are smooth and glossy and deeply cleft into seven, eight, or nine long, arrow-shaped lobes which diverge from the stem. They are rather thin-textured, and the colour is dark green above and lighter beneath. The lobes are two-cleft, and they are toothed at the apex. The ribs and veins are conspicuous. The other set of leaves are borne on a separate flowering stalk. They are smaller and similar, and from one to three, usually two, spread from a forked joint between which hangs the pretty, solitary, nodding, waxy-white flower on its short stem. Owing to the large, spreading leaves, the flower might easily be overlooked at first glance. It is two inches broad when fully expanded. The bud case is enclosed in three temporary bracts, and as the petals open the six sepals fall away. The ovate petals are slightly concave, and from six to nine of them form a very pretty saucer-shaped flower. They are thick-textured, and beautifully networked with fine veins. The stamens have prominent yellow anthers, which are arranged in a circle around the large, thick pistil. The blossom has an odour that is neither pleasing nor repulsive. The Wild Lemon gets its name from the large, lemon-shaped yellow fruit, which ripens in

July. It also resembles a small yellow, egg-shaped tomato, such as are used for preserving. In some localities in the South, where the hogs are allowed to roam at will, they feed upon this fleshy seed case, and consequently the plant is known by the inappropriate name of Hog Apple. The fruit is sweetish, slightly acid to the taste, has a sickish flavour, and is the only part of the plant that can be eaten with impunity. This plant is not a true Mandrake, although this name is commonly applied to it. The leaves, stalk, and stems of the May Apple are poisonous if taken internally, and these parts should not be placed in the mouth. The root contains powerful medicinal properties that are likely to cause serious effects unless administered by a physician in small quantities. The Latin name is derived from *pous*, *podes*, a foot, and *phyllon*, a leaf, alluding to a fancied resemblance of the leaf to the webbed foot of a duck. The fruit of this species should not be confused with the May Apple of New England which is altogether different. The latter is a curious, pulpy growth occurring upon the Azalea or Swamp Honeysuckle. The Mandrake is more or less common in low, rich woods where the ground is shaded and moist. It ranges from Quebec and Ontario to Minnesota, Florida, Louisiana, and Texas.

BLOODROOT. INDIAN PAINT. RED PUCCOON

Sanguinària canadénsis. Poppy Family.

The Bloodroot is one of the very earliest spring flowers. Long before the trees and shrubs take on

their vernal foliage, the flower stalks press through the leafmould with the buds snugly enfolded in a delicate silvery, paper-like leaf that seems to serve like the cape of a débutante, from which emerges the single, stately bud, corsaged in a two-parted green calyx. While the leaf is expanding, the bud continues to rise for several inches, and then, fully developed, suddenly bursts open, dropping its calyx and exposing its six, eight or more beautiful, snowy white petals, and a brilliant golden yellow centre of some twenty odd pyramided stamens. The petals are long, narrow and taper at either end. The alternating inner four are distinctly narrower than the outer ones, and form a square, rather than a perfectly round outline. On bright, sunny days the lovely, solitary blossom expands almost flat, and the tips of the petals curve upward with a graceful tilt. They close at night, and remain partly folded on dull days. They are very fragile, and of few days' duration. Wind and rain are their undoing and unless closely watched for, they are more than likely gone to seed ere their beauty has been observed. The blossom is often an inch and a half broad and is sometimes tinted with pink. Soon after the flower is spent the leaves reach the height of ten or twelve inches, and a narrow, pointed seed pod matures in their shadow. The pale, yellow green stems are tinged with red. The leaves, usually two, or often one, are large, coarse-looking, and rounded, deeply lobed or heart-shaped at the base, and toward the end more or less indented, with from one to five smaller lobes,

with their edges slightly toothed. The smooth, rich green upper surface is strongly veined, and the under side is silvery white and coarsely veined. The thick, fleshy, blunt-ended, perennial root contains a copious deep orange-red sap which is both acid and astringent. This sap is also present in the stems and leaves and they "bleed" instantly when broken. The Indians made ample use of the Bloodroot. The brilliantly coloured juice was used for staining their faces and arms when preparing themselves for their peace or war dances. The squaws utilized it also for decorating skins and baskets. It served their medicine men when catering to their bodily ailments. At the present time Bloodroot is employed as a remedy in bronchial troubles. Many grandmothers can tell how they used to dole out drops of its bitterish blood on a spoonful of soft sugar to those of the family circle who became afflicted with a cough or a cold. Sanguinaria vinegar, made from the rootstock, has a domestic ring, and is used locally for ringworm and also as a gargle for sore throat. Bloodroot is found from Nova Scotia to Ontario and Nebraska, southward to Florida and Arkansas, during April and May. It prefers rich, open woodlands, and especially rocky slopes where the soil is loose and well drained.

DUTCHMAN'S BREECHES. SOLDIERS' CAPS

Dicéntra Cucullària. Fumitory Family.

Perhaps, in the olden days when the elfs made merry in the woodland dells, they were dressed in tiny,

white, corduroy panties. Perhaps, one night during the springtime, they were caught in an April shower and their pretty white panties became soiled, and perhaps their mammas washed them, and hung them out to dry on a stem, and perhaps they grew fast to the stem — who knows? Surely the dainty and curiously constructed flowers of the Dutchman's Breeches would cause one to think so when he first saw them. The finely ribbed, white, yellow-tipped flowers consist of two upright, hollow, flattened and tapered spurs, widely separated at the tips, like a pair of horns, and joined toward the base, forming a baggy, heart-shaped pouch — for all the world like a miniature pair of inverted pantaloons, which were so becoming to the dear, good old ancestors of our own Pennsylvania Dutch. The two leg-like spurs are in reality petals, of which there are four. The other two are very small and narrow, and at right angles with the two longer ones and their hollowed tips are extended to form an arch over the slightly protruding, yellow stamens, of which there are six. The green style is very slender and is capped with a two-lobed stigma. The flowers are daintily suspended by a short stem, one after another, toward the tip of a slender and slightly curving, pale green stalk, which grows from five to ten inches high. The whitish, two-parted sepal is exceedingly small. The minutely crested flowers vary in number from one or two to seven, eight or nine. They are delicately textured, and of brief endurance. Frequently they are tinted

with a delicate pink, and have a slight odour. The petals soon fall away and leave an oblong seed pod to mature. The rather large, thrice compound, delicate green leaves are divided again and again into sections of three, and present a well-grouped, thick and feathery appearance. They are a shade lighter in colour underneath, and are gracefully suspended from long, slender stems which rise from the root. The root is composed of a number of small tubers, closely clustered together and having the appearance of a scaly bulb. Sometimes these clusters may be found partially exposed, where they have been washed out of the banks by heavy rains, and then they have a decidedly red colour. The plant is perennial, and occurs commonly from Nova Scotia to Lake Huron. Minnesota and Washington, and southward to North Carolina, Nebraska, and Missouri. Look for the Dutchman's Breeches early in April and May along rocky hillsides, in rich, open woods, where they may be found in scattered groups, covering a considerable area. The Latin name, *Dicentra*, means double spur. The beautiful Bleeding Heart, *D. eximia*, cultivated in our gardens, is a member of this decorative family, and is a native of Japan, from whence it has been introduced.

Squirrel Corn, *D. canadensis*, is a similar species, having its greenish white petals stained with purple instead of yellow, and is slightly fragrant. It is named from the appearance of its granular roots, which are also said to be relished by the squirrels. The spurs are short and rounded, and the crested inner petals

project conspicuously. The leaves are decidedly whitish on the under side. This species comes into blossom about a month later than the preceding, or during May and June, and is inclined to rich woods in the cooler portions of its range. The tubers are said to be used as a tonic and as a remedy for skin diseases.

PEPPERGRASS

Lepídium virgínicum. Mustard Family.

Peppergrass is common everywhere along roadsides and in fields from the West Indies and the Gulf States northward to Minnesota and Quebec. It is known by every schoolboy in the land, who has nibbled its peppery buds and seed cases, time and again. The plant is somewhat similar to the Shepherd's Purse, but is more branching, and the seed-pods are set closer and less sprawling on the stems. The upper part of this plant is more leafy, and the colour is possibly a paler green. The leaves of the basal rosette are less divided and more paddle-shaped with their edges nearly all toothed. The four white petals of the minute flower are often wanting. The flat, notched, scale-like seed-cases are loosely arranged around the ever-lengthening flower stalk, and they graduate finely into the few flowers and buds at the tip.

SHEPHERD'S PURSE

Capsélla Búrsa-pastòris. Mustard Family.

The Shepherd's Purse takes its name from the little, flat, triangular seed-pods, which are the plant's most

conspicuous production. It is found the world over, from one end of the year to the other. It was introduced into this country from Europe and is, perhaps, our most common weed. It is found in blossom from April to September, and prospers in waste places, and along paths and roadsides everywhere. It resembles the Sweet Alyssum of our garden borders, to which it is related. The branching stalk rises from a long, deep root to a height of from six to twenty inches. Four little white petals and six tiny stamens, two of which are shorter than the others, one pistil, and four early falling, fuzzy sepals form this insignificant flower, which is borne in a small terminal cluster. As the stem grows, the flowers continue to blossom and graduate into the small, wedge-shaped seed cases after they mature. The long, narrow leaves form a large rosette at the base of the stalk and they are deeply divided into numerous, irregular pointed parts which are arranged in pairs, with a larger, terminal lobe. The few alternating stem leaves are lance-shaped with the margins more or less toothed. They are stemless and clasp the stalk with an arrow-shaped base. The lower part of the plant is often covered with fine, forked hairs. The plant has some medicinal qualities.

TWO-LEAVED TOOTHWORT. CRINKLEROOT

Dentària diphýlla. Mustard Family.

Country people will tell you that the roots of the Crinkleroot make a mighty tasty sandwich, and if you happen to walk through the woods with them during

May, they will dig up a few pieces and let you nibble on them, or if you are really hungry these roots will form a delightful addition to your little lunch of home-made bread, cold meat and hard-boiled eggs at the spring where you stop to eat and rest. The crinkled, edible root is considered of greater importance than the flowers, although without the attraction of the latter, they would not be so easily found. It is crisp and fleshy and tastes much like watercress. It grows horizontally from five to ten inches long and is often branched, crinkled and toothed, from which formation it takes its name. The pretty white flowers have the cross-shaped ear-mark that brands every member of the Mustard tribe. They are often found mingled with the Anemone and the Spring Beauty and their kind in the spring. The stem, which is stout and smooth, rises directly from the rootstock from eight to fourteen inches in height. The flower has four rounded petals which are arranged in opposite pairs and are spreading at the apex. They are over half an inch in diameter and are borne in a small, terminal cluster. The four green sepals drop early, and two of the six yellow stamens are noticeably smaller than the others. The single slender pistil ripens into a flat, lance-shaped pod. The large, smooth leaves are divided into three short-stemmed broad, wedge-shaped leaflets with toothed edges. They are set on long stems springing from the rootstock. Two somewhat smaller leaves are set nearly opposite each other on the upper part of the flower stalk. The Crinkleroot grows in pretty clusters,

preferably in rich leafmould, in woods and meadows, from Nova Scotia and New Brunswick, to Lake Superior and Minnesota, south to South Carolina and Kentucky.

The Cut-leaved Toothwort or Pepper-root, *D. laciniata*, is found during April, May and June, in moist or rich woods from Florida and Louisiana northward to Minnesota and Quebec. The rootstock is deeply seated and its jointed appearance has likened it to a beaded necklace. It is edible and has a pungent and peppery taste. The flowers are nearly three-quarters of an inch broad and the petals are white, usually tinted with pink. The upper leaves are three-parted, having the outer parts often divided with two uneven clefts. All the parts are sharply toothed or lobed, and their general shape is narrowly oblong or lanceolate. Three leaves are set on short stems in a whorl, well up on the flower stalk. The similar basal leaves are rarely developed at the time of flowering. The blossoms are arranged like those of the Crinkleroot.

ROUND-LEAVED SUNDEW. DEW-PLANT. ROSA-SOLIS. YOUTH-WORT

Drósera rotundifòlia. Sundew Family.

It is exceedingly interesting to ponder over the unlimited resources of Nature, which enable her to rise to any emergency. The Audubon Society will tell you that a horrible famine might result if it were not for the birds that hold in check untold hoards of insects. But it is easy for an observer in botany to conjecture

that if this task of extermination had not been successfully maintained by the birds, the same economic condition would have been developed in certain plants. And while we listen to reports of decreasing bird life, it is well to consider that there is also a corresponding increase in plant life. While certain birds are really becoming rare or even extinct, so are certain flowers. On the other hand, certain birds are increasing, and even so are certain flowers. So we find an active working force with an assisting support and an unlimited reserve always available. The latter includes certain fungi that attack and overcome swarms of insects besides the real catch-them-alive plants like the Venus Flytrap, Pitcher Plant, Dogbane, Catchfly, and the Sundew. The last is a small flowered species having a smooth, red, slender flowering stalk, rising from four to ten inches high from a low spreading rosette of the most curious leaves. This remarkable, small, circular green leaf is suddenly narrowed into a short, flat, hairy stem. The upper surface is slightly hollowed, and is covered with irregular, fine, reddish hairs, which exude a colourless, sticky fluid from their tips, that sparkles like dew drops. These transparent, glittering drops are peculiar to the Sundews and seem to attract tiny passing insects which, alighting on the leaf, immediately become stuck in the gummy substance. Then the slowly curling hairs hopelessly entangle their struggling prisoner, and finally the leaf, closing inward, enfolds its victim and ends its life. At this stage the leaf literally digests its prey with the aid of a new flow of a peptic

liquid not unlike gastric juice in the stomach of animals. A dozen or less tiny white flowers are borne along one side of the drooping, terminal end of the stalk. They open only in the sunshine and but one or two at a time. This is a rather inconspicuous little plant and is likely to be overlooked. It has a very short rootstock and yields a purple stain to paper. It is found commonly during June, July and August in bogs or wet, sandy ground from Labrador to Alaska, south to Florida and Alabama, and in the Sierra Nevadas to Montana and California.

EARLY SAXIFRAGE

Saxífraga virginiénsis. Saxifrage Family.

Early in March the pretty little white flowers of the Saxifrage blossom in numerous spreading groups, which are loosely clustered on the tops of long, thick, often sticky, hairy stems. This plant grows from four to twelve inches high and loves to dwell in dry or rocky hillsides and woodlands, where it usually roots in small chinks or crevices among the rocks. Its name is derived from the Greek, meaning rock-breaker and alludes to its fabled power to rend apart the rocks where it is generally found growing. It also has some significance in reference to certain bodily ailments which it was supposed to cure. The small, smooth, oval leaves taper to a rounding point and narrow at their base into broad stems. They are thick textured and their edges are scalloped. They are gathered into a small, compact and rounded tuft near the ground. The flowers have five pointed petals, ten yellow stamens,

and a five-parted light green calyx. They continue to bloom into May and are found from New Brunswick to Minnesota, south to Georgia and Tennessee.

FALSE MITREWORT. FOAM-FLOWER. COOLWORT

Tiarélla cordifòlia. Saxifrage Family.

The form of the pistil of the False Mitrewort is responsible for its Latin name, meaning a little tiara or turban. The slender, hairy flowering stalk rises from six to twelve inches high from the rootstock or runners, as do the long-stemmed and often mottled leaves. The latter are broadly heart-shaped at the base and are unevenly and sharply lobed and toothed. They are sparingly hairy above, and downy on the veinings beneath. The five clawed, white, pointed-oblong petals are supported with a white bell-shaped calyx, and the ten long, slender, orange-tipped stamens project and give the flower a soft, fuzzy appearance. The flowers are loosely clustered in terminal, feathery and graceful spires. The Coolwort grows in dense masses and in the late summer the foliage becomes discoloured and brown. It is found in bloom during April and May in rich, moist, rocky woods from Nova Scotia to Ontario and Minnesota, and south in the mountain districts to Georgia, Indiana and Michigan.

TWO-LEAVED-BISHOP'S CAP. MITREWORT

Mitélla diphýlla. Saxifrage Family.

The form of the young seed-pot of this plant suggested its Latin name, from *mitra*, a cap. The slender,

RUE ANEMONE. Anemonella thalictroides

MEADOW VIOLET. Viola cucullata

MAY APPLE. MANDRAKE. Podophyllum peltatum

hairy flowering stalk is quite naked excepting for a pair of nearly stemless opposite leaves halfway up its length. Other leaves are borne singly on long, hairy, slender root stems. They are broad-oval, pointed at the tip and deeply heart-shaped at the base. They have three or five unevenly scalloped or toothed lobes and are rather thin with the ribs and veins showing. The bewitching little flower has its five white petals finely cut and fringed, and immediately suggests the form of a tiny, star-like snow or frost crystal. It has ten protruding yellow stamens and a little white, bell-shaped calyx. The flowers are clustered on short stems in an open, terminal, wand-like spike and are found during April and May in rich, open woods and on moist banks, from Quebec to Minnesota, North Carolina and Missouri.

CAROLINA GRASS OF PARNASSUS

Parnássia caroliniàna. Saxifrage Family.

A pretty five-petaled perennial, growing from eight to twenty-four inches high, in swamps and low meadows, from New Brunswick and Manitoba, south to Virginia, Illinois and Iowa. The spreading, broad, oval petals are white or creamy white, veined with delicate, pale-green lines. Five stamens with large anthers alternate with the petals and numerous straw-coloured, imperfect stamens are clustered around the green pistil. The solitary flower is borne on a long, slender stem rising from a loose cluster of basal leaves. Part way up the flower-stem is a single clasping leaf. The long, thick-

stemmed, heart-shaped leaf is toothless, thick-textured and blunt-pointed. It is often partly curled inward like a scoop and is found in blossom from June to September. This genus has been named from the Greek Mount Parnassus, and the plant was called Grass of Parnassus by Dioscorides. Six or seven species are found in this country.

WILLOW-LEAVED, OR AMERICAN MEADOW-SWEET. QUEEN OF THE MEADOW. QUAKER LADY

Spiraèa salicifòlia. Rose Family.

The large, fleecy pyramids of delicate, pink-tinted white flowers of this pretty maid-of-the-mist enlighten the rank growths peculiar to low, moist situations, from June to August. Its smooth, tough, leafy, yellowish brown stalk grows from two to four feet high and is often branching at the top. The closely set alternating leaves are oval or oblong, with pointed tips and finely toothed margins. They are rather firm-textured, nearly smooth, and short-stemmed. The dainty little flowers have five slightly curved and rounding petals and many rosy stamens, which project and lend a feathery appearance. They are densely clustered on terminal spires. These blossoms have a slight odour but they are not at all fragrant, and in this respect the name of Meadow-sweet is misleading, although it does apply to the simple attractiveness of the plant. This species is found from Newfoundland to the Rocky Mountains, and south to Georgia and Missouri; also in Europe and Asia. *Spiraea,*

derived from *speria*, meaning band or wreath, is an ancient Greek name of a plant used for garlands.

THE BLACKBERRIES

Rosàceae. Rose Family.

The starry white flowers of the Blackberries are very conspicuous and exceedingly common during May and June, when they smother the tangled, bristly bramble patches with their fluffy, snowy whiteness. Owing to the numerous prickles with which the stems are armed, the showy flowers are not popular as a nosegay. The fruit ripens during July and August. It is at first green, then red, and finally black, graduating through the intermediate shades as it matures. Blackberry jam is one of the oldest cupboard favourites in the sweetmeat line, and blackberry brandy or cordial is a simple and popular remedy, much respected as an adjunct to the family medicine chest. The syrup is made from the roots as well as from the juice of the ripe fruit.

WILD, VIRGINIA OR SCARLET STRAWBERRY

Fragària virginiàna. Rose Family.

John Greenleaf Whittier twanged a sympathetic chord that will vibrate for generations to come, when he exalted the Barefoot Boy,

> "With thy red lips; redder still
> Kissed by strawberries on the hill."

And it is quite evident that the great poet himself had enjoyed the flavour and fragrance of the Wild Strawberry. Indeed, it is a delightful privilege that many

of us have experienced. The hairy leaf and flower stems rise directly from the running roots. They are from two to six inches long and are sheathed at the base. The wheel-shaped flower has five short-clawed, rounded white petals and numerous orange-yellow stamens with a green, cone-shaped centre. The five green sepals are alternated with an equal number of bracts which show between the petals. Later, after the petals fall away, the sepals remain closely set to the maturing fruit. Several flowers are loosely clustered on short foot stems from which, later on, the attractive berry droops prettily. The compound leaf has three toothed and broad wedge-shaped hairy leaflets that overtop the fruit. They form little dark green tufts in scattered patches in fields, pastures and along woodsides, flowering from April to June, and often again during August, from New Brunswick to South Dakota, and South to Florida, Louisiana and Arizona.

WHITE AVENS

Geum canadénse. Rose Family.

The slender, branching, angular stem of the common White Avens grows about eighteen inches high in moist, shady places and blossoms from June to August. The large, tufted, long-stemmed, basal leaves have from three to five unequal divisions or are lobed. The upper leaves are long, oval affairs, arranged singly or in threes, and are usually stemless. They are all roughly textured, and both stem and leaves are coarse and hairy. The five-petalled white flower is insig-

nificant, and the yellow-tipped stamens surround the central cluster of green pistils. They occur on terminal foot stems, and the large, five-parted, white-edged, green calyx alternates with the widely separated petals. The seed ripens in burr-like clusters, with long, hooked tips that play havoc with one's clothing, to which they adhere with an especial delight. This plant ranges from Canada to Georgia and Missouri.

BLACK RASPBERRY. BLACK CAP

Rùbus occidentàlis. Rose Family.

The smooth, curving, cane-like stalk of this species often roots again at the tip, and it grows some ten or twelve feet in length. It is sparingly covered with small, hooked prickers. The leaf is three-parted, rarely five, and the leaflets are oval and pointed. The under surfaces are of a much lighter shade than the upper, and the edges are coarsely toothed. The five-petalled white flowers are densely clustered in pretty, round terminal heads. This is the favourite little Black Cap that country children like to string on grass stems when they go berrying for fun. It is common especially in burnt-over districts, and along fence rows, stone walls, and neglected farm buildings, everywhere from Georgia and Mississippi northward to Quebec and Ontario.

HIGH BUSH BLACKBERRY

Rùbus allegheniénsis. Rose Family.

A very common, scrubby, branching bramble with long, grooved, erect or curving stalks growing from

three to ten feet in length, and armed with stout, slightly recurving thorns. The stiff, prickly purplish or brown stalks of the past year are easily distinguished from the new, green shoots. From three to five pointed, oblong leaflets compose the compound leaf. They are unequally toothed, strongly ribbed and their surface is hairy. The five light green sepals alternate between the large, narrow, white petals and the numerous, slender, brown-tipped stamens are prettily clustered around the little group of green pistils in the centre. The flowers are borne in loose, terminal clusters. The juicy, thimble-shaped fruit ripens in hanging groups during July and August. This is the original of the ordinary form of the cultivated or garden variety of blackberry, now extensively raised for marketing. For over a hundred years it was erroneously known as *Rubus canadensis*. It prefers dry soil in open, sunny places, in low altitudes, from Nova Scotia to Ontario and North Carolina. A white-fruited variety occurs in Michigan.

RUNNING BLACKBERRY

Rubus hispidus. Rose Family.

This slender-stemmed and weak-bristled, branching Blackberry creeps gracefully along its way from four to ten feet. The few prickers are scantily scattered. The compound leaves are three-parted, and the thick-textured, wedge-shaped, dark green leaflets are rounding at the apex and sharply toothed above the middle. Throughout the winter the dull, purp-

lish red leaves may be found in delightful contrast with the snow. The small, five-petalled white flowers are usually grouped, and the reddish purple fruit is small and sour. It grows commonly in swamps and low grounds generally, from Nova Scotia to Ontario and Minnesota, south to Georgia and Kansas.

LOW RUNNING BLACKBERRY. DEWBERRY.

Rùbus villòsus. Rose Family.

A trailing, woody-stemmed vine, loping along the ground for several feet and often armed with scattered prickers. Its ascending branches are sparingly prickled. The large leaf has from three to seven oval or pointed, wedge-shaped leaflets. They are thin-textured and sharply cut with fine, even teeth. The large, white, five-petalled flowers are fragrant, and grow singly or in sparse clusters of two or three. The small, juicy black fruit is large-seeded, but has a delicious flavour. It is common along dusty roadsides, on dry hillsides, and in fields, from Virginia, Louisiana and the Indian Territory northward to Lake Superior, Ontario and Newfoundland.

RABBIT-ROOT, OLD-FIELD, STONE OR PUSSY CLOVER. HARE'S-FOOT

Trifòlium arvénse. Pea Family.

The funny, fuzzy heads of the Pussy Plant are often carelessly passed and unnoticed with the mistaken idea that they are merely the faded and bleached remains of some perished blossom. And if you are not careful

to investigate these hoary top-knots when you first find them, you are likely to fall into the same error. Most people fail to identify this species as a member of the Clover tribe at sight, notwithstanding there is no getting away from its trifoliate leaf. The generic name, *Trifolium*, is derived from the Latin *tres*, three, and *folium*, a leaf, and alludes to the three-parted compound leaf, which is characteristic of this family. The name Clover is thought to have been derived from the Latin *clava*, meaning clubs, in connection with the mythical three-headed club of the mighty Hercules, which the Clover leaf is supposed to resemble. The so-called clubs on playing cards are believed to have originated from the Clover leaf. The Rabbit-foot Clover is an immigrant from Europe. The name comes from the fancied resemblance of the furry flower, to that popular token of good luck, the foot of a rabbit. The annual, slender, erect stalk is much branched and covered with minute silky hairs. It grows from six to eighteen inches in height and every branching joint of stalk and stem is sheathed with a stipule having a pair of long, curving, needle-like points. The three small, thin, velvety leaflets forming the compound leaf flare from the tip of a short, slender stem. They are long and very narrow, lance-shaped, the broader part toward the rather blunt three-pointed apex, and they taper into short stems at the base. The length is less than an inch. The midrib is noticeable the entire length, and finally forms the centre one of the three tiny tips at the

apex. The margins and veinings are very similar to those of the Yellow Clover. The sweetly scented flowering heads usually occur in terminal pairs. They are oblong or cylindrical in shape, and the general colour is a beautiful pearl-gray tinted with pink. They are composed of numerous florets densely arranged in the exceedingly thick and downy plume which varies from one-quarter to an inch or so in length. The greenish-white corolla of the tiny floret is much shorter than the little green calyx, which extends its five remarkably long, feathery pink tips out of all reasonable proportion, to form the silky heads. The Stone Clover is a native of northern Asia. It blossoms from May to September and is more or less common east of the Mississippi.

WHITE, DUTCH OR HONEYSUCKLE CLOVER

Trifolium rèpens. Pea Family.

This is the commest of the white Clovers and is found everywhere in great abundance. It is extensively used for lawns and has been cultivated in some parts of the country where it is highly prized as a pasture for cattle. Bee-keepers claim that the sweetly scented flowers produce the choicest quality of white honey. It is generally supposed that this species is identical with the Shamrock of Ireland, although it is thought to be native to the northern United States and Canada. The leaf is commonly compounded of three parts or leaflets, but here and there a solitary leaf is occasionally found bearing four or more parts. The four-parted

one is universally known as the "four-leaf Clover" and is popularly accepted as a token of good luck. A diligent search will seldom fail to find one or more of them in a healthy patch of Clover foliage. The earliest primary school song I remember learning had much to do with directing my mind to appreciate the glories of Nature:

> "Down among the meadow grass,
> Searching it all over,
> What a merry band are we,
> Hunting four-leaf Clover."

June finds this Clover at the height of its floral activity, and the bees fairly swarm over the blossoms from daylight to dusk. The slender, light green stalk is spreading and creeping. As it extends, long, delicate leaf and flower stems spring upright therefrom at short intervals, forming dense mats of medium green flecked with white, that are very pleasing. The stalk often takes root at the sheathed nodes, or joints. It grows from four to twelve inches long. Three rounding oval or inverted heart-shaped leaflets with narrowing bases, which unite at the tip of the slender stem, form the compound leaf. Their margins are finely toothed and their surfaces are usually marked with a whitish or grayish green triangular or broad V-shaped band, the angle of which points toward their apex. The midrib is strong, and the feathery veinings show on the under side. Clover flowers are botanically known as pa-pil-i-on-a-ce-ous, that is, they are butterfly-shaped. The beautiful Sweet Pea of our gardens is a clever illustration of this curious

and irregularly constructed blossom. Of course, they are necessarily greatly reduced in size and more or less modified otherwise in the Clovers, since so very many are crowded on the flowering head where they are known as florets. In the present species, these florets are white, cream white, or frequently pinkish. They are set erectly in small, five-parted, light green calyces on small stemlets. As they fade, they become brownish and husky, and turn flaringly downward, separating the head for a time in two parts, the quick from the dead, until finally all become reflexed, while the seeds ripen. The White Clover is very common everywhere in fields and along roadsides, but more so east of the one-hundredth meridian. It is quite possibly a native well north, as it is in Siberia. It blooms from May to December. In England it is known as Sheep's Gowan, Honey Stalks and sometimes Shamrock.

WHITE MELILOT. WHITE SWEET CLOVER. HONEY-LOTUS. TREE CLOVER

Melilòtus álba. Pea Family.

Great armfuls of the White Sweet Clover are gathered annually because of the delightful fragrance of its leaves, which becomes more pronounced as they dry out and emit their pleasing odour in our rooms and closets. I have never heard of these leaves being used as a tea, but have often thought that I should like to try them — their fragrance is so refreshing. The dried leaves have been used like camphor, as a preventative for moths in packing away furs and woollens,

but their efficacy is questionable. Somewhere, it is said, the flowers are used for flavouring snuff and tobacco. Many persons have been mistaken in their belief that this plant supplied the material used by the northern Indians who weave the scented sweet-grass novelties that are offered to us conditionally, everywhere we turn during our summer outings. The White Melilot is an annual or bi-annual herb, coming to us from Europe and it is also a native of Asia. It flourishes in the greatest profusion along our country roadsides everywhere, and blossoms from June to November, when Jack Frost cuts it down. The widely branching stalk rises from three to ten feet in height and is generally smooth The comparatively small leaves are short-stemmed and three-parted. The leaflets are long-oblong in shape and their margins are toothed. They are narrow at the base and round at the tip, which is either blunt or nicked. Many small, white florets form the long, slender, flowing spike which, on account of its abundance of nectar, attracts myriads of insects and bees. The flowers are pleasantly scented.

POISON IVY. POISON OAK. MERCURY

Rhús Toxicodéndron. Sumac Family.

Nearly everyone is familiar with the unpleasant effects produced by contact with this treacherous and exceedingly poisonous vine, which has undoubtedly caused more harm to mankind than all other plants together. The actual poison has been traced to a powerful, non-volatile oil contained in all parts of the plant, and which

retains its baneful activities throughout every month in the year. Now and again we hear of persons being immune to its attack, but it is a mooted subject and its ill effects vary greatly from mild to severe. The writer recalls an occasion when both eyes were closed for a day or two by the swelling caused by the effects of this poison. And singularly enough, he has subsequently handled all parts of the plant at all seasons without experiencing the slightest infection. It is an uncertain privilege, however, and it is always highly advisable to avoid it altogether. The poison first manifests itself by an inflamed irritation of the affected part of the skin. Tiny blisters immediately succeed a burning sensation. They spread and increase rapidly in size and number until the itching and swelling finally becomes very unpleasant. Frequent applications of a strong solution of weakened alcohol and powdered sugar of lead, well rubbed into the affected part, will usually relieve the discomfort at once and prevent the spreading of the poison. This lead solution is very poisonous if taken internally. When the redness first appears, a thorough washing of the affected part with strong, hot soapsuds is recommended. Cold water will not dissolve the poisonous oil.

This thrifty, climbing woody vine is very prolific, and grows abundantly everywhere throughout its range. It is commonly found in thickets and along country highways, fences and woodland borders, where the dense foliage covers everything it clings to. It climbs readily by numerous aerial rootlets, but is quite as

frequently found low-growing, erect and bushy. The shining green leaf is composed of three smooth, broad, pointed-oval and short-stemmed leaflets, which are plainly ribbed and have either regular or irregular margins. These three leaflets are set on the end of a long, slender stem. The stem of the centre leaflet is longer than those of the other two. During May and June numerous small, fragrant, yellowish-green flowers appear in densely clustered spikes which grow from the axils of the leaf stems. They are succeeded in the fall by many smooth, white, waxy berries which often remain through the winter months. The Virginia Creeper is generally confused with the Poison Ivy, but can always be distinguished from the latter by its slender-pointed, coarsely toothed and usually five-parted leaf and also by its spreading clusters of *blue* berries. Poison Ivy yields a milky juice which turns black when exposed and imparts an indelible stain to fabrics. In the fall the foliage of this plant turns to beautiful shades of yellow and scarlet and becomes very attractive and decorative. It ranges from Nova Scotia and British Columbia to Florida, Texas, Arkansas and Utah.

NEW JERSEY TEA. RED-ROOT. WILD SNOWBALL

Ceanòthus americànus. Buckthorn Family.

Every patriotic citizen of the United States should know this historic plant, because a brewing of its leaves was used as a substitute for tea by the American troops during the Revolution. It was employed at about the

same time, too, when old King George the Third unwittingly assisted in creating the greatest tea-party at Boston Harbour that the world has ever known. The astringent roots possess some medicinal qualities, and they also yield a brown dye. It is a small, shrubby, branching species, with a whitish, powdery bloom, and its leafy stalk rises two or three feet high from a deep, reddish root. The pointed, oval leaf is set alternately upon the stalk with short stems. The hairy surface is creased with three ribs and its edges are finely toothed. Numerous tiny, white or creamy white flowers are densely crowded into oblong, terminal clusters. They are composed of five petals, and have long, slender stems, and possess a faint fragrance. It ranges from Ontario and Manitoba to Florida and Texas, in dry, open woods, where it blossoms from May to July.

VIRGINIA CREEPER. AMERICAN IVY

Psédera quinquefòlia. Grape Family.

The name Woodbine is very frequently misapplied to this high climbing or trailing vine with its numerous tendrils. It is commonly confused with the Poison Ivy, but can be easily distinguished by its five-parted leaf, while the leaf of the latter is three-parted. The short-stemmed leaflets are elliptical in shape with tapering points, and the outer half is coarsely toothed. The surface is usually smooth, and the colour is dark green above and lighter underneath. The insignificant yellowish green flowers grow in irregular, broadly branching clusters. These are succeeded in the fall

by small, round, dark blue berries. At this season, the foliage turns to a beautiful red or scarlet and is very attractive and greatly admired. The Virginia Creeper sprawls over everything within its reach, and is extensively cultivated about the porches and fences of suburban homes. The berry is not edible. This vine is common in woods and thickets from Quebec to Manitoba, Florida, Texas and Mexico.

SWEET WHITE VIOLET

Viola blánda. Violet Family.

"The dearest violet of all," observes Neltje Blanchan. Surely a more charming and appropriate comment on the Sweet White Violet would be difficult to imagine, for the very modesty and nature of this dainty little queen of Violets defies the effort. If it is true that the Violets are steeped in the bluest blood of royalty, then it must be true also that this particular Violet is mistress of them all. Its exclusive air of refinement, its exquisite race, its delicate fragrance, even its robe of ermine petals, all tend to betray its dignity. In low, damp, open woods, or wet meadows and swamps, where few flowers are wont to dwell, this tiny reflection of love and simplicity waits, with becoming stateliness, to greet us during April and May. It is one of the smallest, if not the smallest of the Violets, and is also one of the earliest to be found in blossom. The uniformly sweet-scented flower has five white petals. The upper pair are often long, narrow and decidedly recurved. It is usually beardless and has a short spur. The lower

BLOODROOT. Sanguinaria canadensis

DUTCHMAN'S BREECHES. Dicentra Cucullaria

petals are veined or hair-lined with purple. The matured flower measures from one-quarter to one-half inch broad, and is borne singly on short, slender stems that really seem a little stout for so small a blossom. Though often found growing five or six inches high, the plant averages nearer two inches. The thin textured, smooth surfaced, yellow-green leaves are round heart-shaped with finely toothed margins. The plant is stemless, that is, it has no main stalk, and the leaf and flower stems spring directly from a very slender rootstock. As the season advances, the plant sends out slender stolens or runners bearing a few petalless flowers that never open. It is found from Newfoundland and New Brunswick to Georgia and Louisiana, and in California.

The Lance-leaved Violet, *V. lanceolata*, is a more slender and somewhat taller species, having striking long, narrow, lance-shaped leaves which gradually taper into a long, slender stem, or petiole, and which is a distinct and ready means of identification. The margins are finely toothed or scalloped, the texture is thin, and the colour yellowish green. The white-petaled flowers are slightly fragrant, and if anything, they are a trifle larger than the preceding species, and like those, their lower petals are marked with purple lines. They are usually beardless and have a short spur. Late in summer they send out many stolens that take root at short intervals and bear apetalous flowers which never open, and in fact, are seldom observed because they are inconspicuous and are obscured by the leaves. This

species is found in wet places, often near the Sweet White Violet, along streams and in wet woods, from Nova Scotia to Minnesota, south to Florida and Texas, during April, May, and June.

The Primrose-leaved Violet, *V. primulifolia*, is another white-flowered species having many of the characteristics of the preceding. The flowers are borne on slightly longer stems, and all of the petals are marked with purple lines. It is readily identified by its spoon-shaped leaves, the edges of which are slightly scalloped, and the veins on the under side being more or less hairy. It is found in open, moist soil from New Brunswick to Florida and Louisiana, from April to June.

CANADA VIOLET

Viola canadénsis. Violet Family.

This pretty, fragrant violet distinguishes itself by blooming twice during the season, first in May and again in August. It is also the tallest of its family, growing sometimes two feet in height. It selects the cooler, higher climate of its range which covers hilly or mountainous portions of Newfoundland and the Hudson Bay region to Saskatchewan and south to North Carolina, Tennessee, Nebraska, and in the Rockies, Arizona and New Mexico, during May and June. The small, yellow-centred flower is pale violet in colour, nearly white within, tinged on the outside with pink and veined with purple. The side petals are bearded. The broad, lower petal is yellow at the base and is striped with fine dark lines. It is sharply pinched

together at the point and has a short spur. The calyx is lined with a purple tint and the flower is borne singly on a short stem which springs from the angles of the branching leaf stems. The plant is smooth, branching, and light green in colour. The thin-textured, strongly ribbed, heart-shaped leaf has a slightly scalloped margin. It is pointed and wavy, or with the edge partly curled upward. Altogether the plant reminds one a little of the Downy Yellow Violet.

ENCHANTER'S NIGHTSHADE

Circaèa lutetiàna. Evening Primrose Family.

A rather inconspicuous flowering perennial, receiving its Latin name from Circe, the daughter of Sol and Perse, a mythical enchantress who first charmed her victims and then transformed them into various animals. The frequency with which it is encountered in shady woods makes this otherwise inconspicuous plant noteworthy. The upright stalk is covered with fine hairs, and grows from one to two feet in height. It is branching, and swollen at the joints. The slender stemmed leaves, which are arranged in opposite pairs, are pointed oval in shape with the edges faintly scalloped. The tiny, white flowers are set in a slender terminal spike. They have only two petals, which are heart-shaped, and alternate with two stamens. The tiny, two-parted calyx is hairy, and the small, drooping, pear-shaped fruit is densely covered with stiff, hooked hairs. This species is found from June to August, from Nova Scotia to Georgia, Nebraska, and Missouri.

A smaller species, *C. alpina*, has thin, somewhat shining leaves which are acutely pointed, slender-stemmed, coarsely toothed and, at the base, somewhat heart-shaped. The flowers are an inch broad and the long, oval seed case is covered with soft, hooked hairs. It is found in cool, moist woods from Labrador and Alaska southward to Georgia, Indiana, Michigan, and Minnesota. Also in Europe and Asia. It is found in blossom from July to September.

AMERICAN SPIKENARD. INDIAN ROOT. SPIGNET

Aràlia racemòsa. Ginseng Family.

The Spikenard is very apt to attract one's attention in the autumn with its ripening clusters of dark purple or reddish brown berries. The large, thick, aromatic roots of this species have an odour and taste resembling that of the Wild Sarsaparilla, but are more spicy. The roots of these two plants are well known and have been used as a family remedy, chiefly in rheumatic and skin affections, much in the same manner and dose as genuine sarsaparilla. It grows from three to six feet high, and is widely branched. The stalk is round and blackish. The very large, compound leaf is slightly downy and has three distinct parts, each of which has several thin, broad, pointed-oval leaflets with doubly toothed margins, heart-shaped bases, and short stems. The numerous small, five-parted, greenish white flowers are loosely arranged in small, round clusters that form a large, curving terminal spike

which sometimes starts from the angles of the leaf stems. It is found in rich, open woodlands, from New Brunswick to Georgia, and west to Minnesota and Missouri, during July and August.

WILD, OR VIRGINIAN SARSAPARILLA. SMALL SPIKENARD. RABBIT-FOOT

Aràlia nudicaúlis. Ginseng Family.

Because the long, creeping, aromatic roots of this plant are very fragrant, they are extensively gathered and sold as a substitute for the genuine article, and so this species has received its common name of Wild Sarsaparilla. Rabbits are said to be very fond of the root, and on this account it has been called Rabbit-foot. It has long been a popular remedy both among the Indians and in domestic practice. The leaf is borne on a single, slender stalk that rises a foot or so in height. It is triply compounded and each part has from three to five pointed-oval parts that are rounded or narrowed at the base and have finely toothed margins. They are gracefully balanced on their three short stems which are set on the top of the leaf stalks. The shorter flower stalk bears several forks, and on the tip of each is set a circular, flat-topped cluster of very small, greenish-white flowers. The five petals of the latter are turned back against the calyx, and expose five stamens. The flowers are succeeded with clusters of shining, globular, purplish black fruit. The young leaves are dark and bronzy. Wild Sarsaparilla is found in rich, shady,

and moist, rocky woods, during May and June, from Newfoundland to Georgia, Colorado, and Idaho.

GINSENG

Pànax quinquefòlium. Ginseng Family.

The Chinese have regarded the root of the Ginseng with the highest of fanatical esteem from time immemorial, and believe it to possess almost miraculous powers in preserving health, endowing youth, and prolonging life. It is said to have been actually worth its weight in gold in Pekin, and the first shipment to Canton from this country yielded fabulous profits. The Chinese name, Ginseng, is said to have originated from the fancied resemblance of the human figure in the root, and the more this shape is developed the higher it is prized. Its medicinal virtues, however, seem to be wholly imaginary; still every Chinaman wants it, and it is now being cultivated and exported at the rate of over a million dollars worth annually. It is small wonder then, that this plant is not common. The stem grows from eight to fifteen inches high, and bears three irregularly toothed leaves in a whorl on slender stems at its summit. Each leaf has five thin, long-pointed, oval leaflets, the outer three of which are largest. From six to twenty tiny, five-petalled, yellowish green flowers are gathered in a rounded, fleecy cluster on the tip of a slender stem springing upright from the common axil of the leaf stems. They are succeeded by a few flattened, bright crimson berries. It should be found during July and August in

rich, cool woods from Quebec to Alabama, Minnesota, Nebraska, and Missouri.

SANICLE. BLACK SNAKEROOT

Sanícula marilándica. Carrot Family.

From the Rocky Mountains eastward to Newfoundland and Georgia, this common and well-known herb raises its stout, smooth, hollow, usually simple and swaying stalk from one and a half to four feet in height. The firm, smooth, dark, or bluish green leaves are compounded of from five to seven palmate or spreading, long lance-shaped leaflets with their margins irregularly notched and toothed. The upper ones clasp the stalk and the lower ones are set on long stems. The tiny, pale, greenish yellow flowers have five petals that curve inward at first and cover the five stamens. Later they unfold and expose their charge. The flowers are both staminate and pistillate, and are found together in the same cluster. They are gathered in a rounding head and from two to four of these heads are borne in a loose terminal umbel. The small, cone-shaped fruit, or burr, is covered with numerous hooked bristles, and is usually tipped with two recurving styles. The fibrous aromatic root has been used for nervousness and fevers. Sanicle blooms from May to July, in rich, moist woods

SWEET CICELY

Osmorhìza longistỳlis. Carrot Family.

This species is a perennial herb having large, thick, clustered, edible roots that are regularly sought by

country children because of their pleasant, anise-flavoured odour and taste. Greatest caution should be exercised in collecting, handling, or eating any part of this plant without positive knowledge of its identity, as it strongly resembles the exceedingly poisonous Water Hemlock, which has caused fatal results. Sweet Cicely is an earlier bloomer, however, and blossoms during May and June. Its upright stalk is widely branched and grows from one to three feet in height. The large, fern-like leaf has three prominent, pointed-oval divisions that are again deeply cut and notched with irregularly toothed margins. The leaves are thin-textured and dark green in colour, and the lower ones have long stems. The small white flowers are five-petalled, and are borne in few-rayed, long-stemmed, flat-topped clusters. The long seeds are armed with two sharp, spreading points. Sweet Cicely is a tall, loose, and rather sparingly foliaged plant, of graceful growth. From it oil of anise has been distilled. It is found in rich, moist woods from Alabama, Tennessee, and Kansas northward.

WATER HEMLOCK. MUSQUASH ROOT. SPOTTED COWBANE. BEAVER POISON

Cicùta maculàta. Carrot Family.

This is one of the most poisonous plants native to the United States, and particular attention should be given to establish its identity that it may not be confused with the Sweet Cicely, or Wild Carrot. It has been thought that this species is identical with

the one from which the ancient Greeks extracted the poisonous potions that were administered to their political prisoners and others of their day. The great Socrates, it is believed, died from a draught of this poison. The deadly qualities are contained in an aromatic, oily fluid, found chiefly in the roots, but also in every part of the plant. The underground parts are most dangerous, and both men and cattle are poisoned annually through eating its roots, or by drinking water in which its roots may have been crushed. No chemical antidote for this poison is known, and it produces violent deaths. It is a stout, smooth, erect, and slender branching perennial, growing from three to six feet high. The hollow stalk is usually marked with purple lines, and the root has several oblong, fleshy tubers. The compound leaf is twice or thrice divided, and the long pointed, lance-shaped divisions are coarsely and sharply toothed. The veinings seem to end in the notches. The leaves are smooth, dark green, and are set on regular stems. The numerous, insignificant, whitish flowers are loosely arranged in a large, spreading wheel of small, flat-topped umbels. It is found from June to August in swamps and low grounds, from New Mexico and Florida, northward to Minnesota and Manitoba.

COW PARSNIP. MASTER-WORT

Heraclèum lanàtum. Carrot Family.

Linnæus made no mistake when he dedicated this tall, strikingly bold, and giant-like perennial to

Hercules who, according to Pliny, used it in medicine. The immense hollow stalk, which is grooved, woolly and very stout, grows from four to eight feet high, and at the base it is often two inches in diameter. The large, rather thin, but coarse compound leaf has three deeply lobed and irregularly notched and toothed, broad, pointed-oval leaflets that are very hairy on the under side, and quite smooth above. The leaf is set on short, widely winged stems that clasp the stalk. The small, white, five-petalled flowers are gathered in an extensive, wide-spreading, flat-topped disk or umbel which is sometimes a foot or more broad. The outer blossoms are larger than the inner ones and their petals are deeply notched and heart-shaped. The Cow Parsnip is rank and coarse, and grows with a tropical luxuriance, in low, moist grounds, where its great white, floral heads are raised like a platter during June and July. The plant has a disagreeable odour, and the foliage and roots produce redness and inflammation when applied to the skin. The acrid roots have been used as a remedy in epileptic cases and also as a stimulant. The roots are also said to have been roasted and used as a food by the Canadian Indians, who also ate the raw leaf stems, which they called Indian Rhubarb. The Parsnip River was so named because of the abundance of these plants along its banks. The Cow Parsnip is the only important one of its genus growing in North America. It is found from Labrador and Newfoundland to Alaska, south to North Carolina, Missouri,

Utah and California, and probably in Washington.

WILD CARROT. BIRD'S NEST. QUEEN ANNE'S LACE

Daúcus Caròta. Carrot Family.

Tirades of abuse and condemnation have been heaped upon the Wild Carrot by farmers whose fields and pastures have been overrun by this prolific immigrant from Europe and Asia. It is doubtful, however, if the farmer knows, or even whether he cares, that this species is said to be the original of the very carrot that he regularly cultivates. Scrapings from the strongly scented roots have been applied as a local stimulant for wounds. The round, slender, hairy, biennial stalk grows erect from one to three feet from a deep, conical root. It is a light green in colour, and very finely ribbed. The lower leaves are exceedingly fringy, being very much cut and divided, and the upper ones less so. Their surface is rough, and the colour is yellowish green. The foliage is sparse and occurs at distant intervals. The tiny, white, usually five-parted flowers have minute, yellow-tipped stamens, and are densely clustered in many small, flat wheels that are again grouped in a symmetric, flat-topped disk. The central flower of each disk is often dark or purplish, and occasionally all of the flowers have a delicate purplish tinge. The outer florets are largest. The flowers are set on slender stems that radiate from a common centre, and about which is set a whorl of

narrow, pointed bracts. On account of their white, fleecy, geometric design, they have a decidedly lace-like appearance. As the fruit ripens, the floral disks or umbels curve upward and form a hollowed nest or basket-like head. This plant is extremely common east of the Mississippi, in fields and waste places, from June to September.

LOW, OR DWARF CORNEL. BUNCHBERRY

Córnus canadénsis. Dogwood Family.

Whatever the Bunchberry lacks in height, it makes up for in spread of foliage during the summer, and brightness of fruit during the autumn. The single slender stalk is four-sided and grooved, and rises from three to nine inches in height from a nearly horizontal rootstock. The four, five, or six, pointed, broad-oval, toothless leaves radiate in a close, flat whorl from the tip of the stalk. They are yellowish green in colour and their surface is strongly marked with several pairs of curving ribs. Frequently one or two opposite pairs of these leaves occur on the stalk below the umbrella-like top. The curious, solitary flower head is composed of a small, dense, flat cluster of tiny, greenish florets, each of which has four spreading petals and an equal number of stamens. Four large, greenish white, rounded, petal-like leaflets surround the cluster, and at a glance the arrangement appears like a single large flower with a greenish centre. The flowers are borne on the tip of a slender stem an inch or so above the centre of the leaves. The rather large, scarlet berries

succeed the flowers, and form a stiff, crowded bunch that is very attractive and decorative. They are said to be edible, and to woodland campers they are a most familiar sight in the autumn. This species is very common in cool, moist woods from Newfoundland to Alaska, New Jersey, Ohio, Indiana, Minnesota, Colorado, and California, where it is found blooming during May, June and July.

ONE-FLOWERED WINTERGREEN

Monèses uniflòra. Wintergreen Family.

This quaint little solitary-flowered denizen of our northern woods is often mistaken for a Pyrola. The slender stalk is acutely recurved, somewhat like a question mark, and, indeed, when one sees for the first time so large a flower on such a little plant, the surprise is apparently mutual, for it seems to say: "Well, what are you staring at?" The stalk terminates a creeping underground shoot, and is beset with a cluster of thin, veiny, shiny, rounding, dark green leaves which have finely toothed margins and slender stems. The five-petalled, white or pinkish, waxy flower is fragrant, and has ten white, yellow-tipped, widely spreading stamens and a prominent, green, club-shaped pistil. It nods or droops from the tip of the curved stalk, and the anthers are noticeably large. The stem becomes erect after the petals fall. It grows from two to six inches high along banks of streams and under pine trees in deep, cool woods, from June to August. It ranges from Labrador to Alaska, and

south to Connecticut, Pennsylvania, Michigan, and in the Rockies to Colorado and Oregon.

ONE-SIDED WINTERGREEN

Pýrola secúnda. Wintergreen Family.

This strange little Pyrola is easily identified by its drooping, one-sided floral spike of greenish white five-lobed, bell-shaped flowers which have exceedingly prominent pistils. Usually several slender flowering stems rise from four to ten inches high from the much-branched rootstock. The thin, glossy, oval, evergreen leaf has a rounded or narrowed base, and tapers toward the tip. The leaves grow in a tuft on slender stems and have a finely scalloped margin and a strong midrib. The stalk is erect at first, but bends to one side as the small, scarcely nodding flowers mature. The flowers blossom in an irregular order along the stalk, and the long, slightly curved pistil remains after the petals have fallen. It should be noted that the petals are not entirely separated, but are joined together in growth. This little plant is found during June and July in rich woods and thickets, from Labrador to Alaska, south to the District of Columbia, Pennsylvania, Michigan, and along the Rockies to Mexico and California. Also in Europe and Asia.

SHIN-LEAF

Pyrola ellíptica. Wintergreen Family.

This, one of the smallest of the Pyrolas, is also one of the commonest. Its flower stalk grows from five

to ten inches high, and bears from seven to fifteen very fragrant, greenish white, nodding flowers. The thin, tough, evergreen leaf is broadly oval or elliptical in shape, and narrowed or rounded at the base where it tapers into a short, reddish margined stem. The edges are obscurely dented with low teeth, and the ribs and veins show whitish against the dark green surface. The stems of the tufted leaves are sheathed at the base. The five thin petals of the waxy flower form a little, spreading cup within which are the ten yellow-tipped stamens. The long, curving pistil extends conspicuously beyond the corolla. The five-parted, green calyx spreads to support the petals. The slender flower stalk bears one small leaflet near the middle. The common name was applied because the leaves were formerly used to allay inflammation in bruises and sores. The Shin-leaf is found from June to August, in rich and mostly dry woods, from Canada to the District of Columbia, Illinois, Michigan, Iowa, and along the Rocky Mountains to New Mexico.

ROUND-LEAVED, PEAR-LEAVED, OR FALSE WINTERGREEN. INDIAN, OR CANKER LETTUCE

Pyrola americàna. Wintergreen Family.

This is the tallest of the Pyrolas, which at a distance resemble somewhat the flowers of the Lily of the Valley. The flower stalk rises from six to twenty inches from a perennial, creeping root. The shining, evergreen leaves spread from the base on long,

narrowly margined stems. They are thick, round, or broadly oval, and often have obscurely toothed margins. From six to twenty delightfully fragrant, white, waxy flowers nod from the slender spike. The thick, rounding, white petals are rather spreading, and the calyx lobes are long and slender. The flower has ten stamens, and an extended, curving pistil. This plant blossoms during June and July in dry, open woods from Georgia and Ohio to Minnesota, and Canada.

INDIAN-PIPE. ICE-PLANT. GHOST-FLOWER. CORPSE-PLANT

Monótropa uniflòra. Indian-pipe Family.

Gathered together in stiff, colourless groups of from three to a dozen or more, these strange, uncanny, waxy white flowers hold their silent, Quaker-like meetings with bowed heads, as if awaiting the motion of some woodland spirit to arouse them. This leafless plant is known as a parasite because it draws its nourishment from other living roots and decaying vegetable matter. It is noticeably cold and clammy to the touch, and is inclined to turn black when plucked or exposed to the sun. The Indians used the Ice-plant for relieving affections of the eyes. The white flower stem, which grows from four to ten inches high, is thick and smooth, and springs from a ball of matted, brittle rootlets. The stem is covered with small, scaly white bracts. The rather large, white terminal and nodding, oblong, shell-shaped flower is wax-like, scentless, and solitary.

MEADOW-SWEET. Spiraea salicifolia YARROW. Achillea Millefolium

HEAL-ALL. Prunella vulgaris

SWEET WHITE VIOLET. Viola blanda

It has from four to six scale-like petals and from two to four early falling white sepals. The short, thick pistil is surrounded with usually ten stamens. After the flower matures, it becomes erect for the seeds to ripen. It is found commonly in dark, rich woods, from June to August, and from one end of the country to the other, also in Japan. Sometimes the entire plant is tinted with pink.

WHITE AZALEA. SWAMP PINK. SWAMP HONEYSUCKLE. CLAMMY AZALEA

Rhododéndron viscòsum. Heath Family.

This species closely resembles the Pink Azalea and grows from four to eight feet high. It is found only in swamps and low, wet places during June and July. The smaller flowers are deliciously fragrant, far more so than those of the Pink species. The plant is more hairy, and the tube of corolla is covered with very sticky, brownish red hairs. It does not become fully flowered until its foliage has well expanded. It is not quite so leafy as the above plant, but is perhaps more branchy. The long, oval leaf becomes wider toward the bluntly pointed tip and narrows to a very short stem. The upper surface is glossy and nearly smooth. The leaves grow in clusters. The beautiful flowers are pure white or occasionally faintly tinted with pink, and the long, yellow tipped, white stamens are very prominent. The calyx is very small and hardly noticeable. The Swamp Pink bears the same peculiar juicy pulps among its lovely flowers, known as May or Swamp

Apples, referred to in the description of the Wild Honeysuckle. The White Azalea is found from Maine, Ohio, and Arkansas south to Florida and Texas. It is much more common near the coast.

SPRING, OR CREEPING WINTERGREEN. CHECKERBERRY. PARTRIDGE-BERRY. MOUNTAIN TEA. GROUND-TEA, OR DEW-BERRY

Gaulthèria procúmbens. Heath Family.

To find the Wintergreen is to find ourselves tramping noiselessly over thick, green, mossy rugs, or slipping and sliding over mattings of bleached pine needles in the mountains. It has lured us away from the clang and rattle of the trolley, and the din and dust of the city. And, as we linger to catch our breath in the cool shade of the evergreens, and to sniff the delightful, woodsy fragrance of the rare atmosphere, we realize that it is also the home of the Bunchberry, Claytonia, Goldthread and Trillium. Children and "grown-ups," too, who roam the woods, like to nibble on the leaves of Wintergreen because of their pleasant, aromatic taste. The leaves are also used for making a fragrant tea, and Wintergreen oil is popularly used as a liniment, particularly in cases of rheumatism. Wintergreen lozenges are used in slight throat affections. The edible "berry" is frequently found in the markets. The slender, creeping stalk extends along the surface of the ground, or just below it, and sends up its erect branches from two to six inches in height. The thick, shining, evergreen leaves are oval or oblong in shape, with rounded tips

and narrowed bases. They are short-stemmed, and the indistinctly sharp-toothed margins are turned backward. They are borne alternately in small terminal clusters at the top of the branching stems. At first the leaves are light yellowish green, becoming darker and bronzed with age. The small white, bell-like flowers are usually solitary and hang nodding from among the leaves. They are urn-shaped, minutely five-toothed, and are succeeded by a bright red, mealy, and very spicy-flavoured fruit. This fruit consists of the seed case that is enclosed when ripe by the calyx, which thickens and turns fleshy and appears as a globular red berry. The berry-like fruit is found in October and throughout the winter. The flower season continues from June to September, and the plant is found from Newfoundland to Manitoba, southward to New Jersey, Georgia and Michigan.

CREEPING SNOWBERRY. MOXIE PLUM

Chiógenes hispídula. Huckleberry Family.

In cool, damp woods where the exquisite Twin-flower and familiar Clintonia love to dwell, this daintiest of our low, trailing plants decorates the mossy hummocks of smouldering stumps with its beautiful, evergreen foliage. It is a very slender, hairy stemmed, and branching creeper with two rows of very tiny, stiff, rounded or pointed oval, dark green alternating leaves. They are glossy above and rusty-haired beneath and, on the curled edges, are also hairy. The tiny, solitary, white flowers spring sparingly from the leaf axils on short,

nodding stems, with two large bractlets under the calyx. The bell-like corolla is four-cleft with rounded lobes. The little flowers blossom during May and June and are succeeded by a finely haired, globular, aromatic, mealy, snowy white berry which is edible and matures during August and September. The berries and foliage have a pleasing flavour like that of Wintergreen or Sweet-birch. The Snowberry is also found in our cranberry and peat bogs, and ranges from North Carolina and Michigan northward to British Columbia and Newfoundland. The generic name is from the Greek, meaning snow-born or snow of spring and alludes to the snow white berries.

STAR FLOWER. CHICKWEED WINTERGREEN. STAR ANEMONE

Trientàlis americàna. Primrose Family.

This delicate little white, starry flower is found during May and June in damp, open woods and thickets, from Virginia, Illinois, and Minnesota far into Canada. It grows from three to nine inches high from a long, slender, horizontal or creeping rootstock. The smooth, slender stalk bears a whorl of from five to ten thin, smooth, veiny leaves at its summit. The unequally sized leaves are lance-shaped and taper sharply toward both ends. They are short-stemmed, and their margins are finely nicked with rounded teeth. The flat, spreading flower has from five to nine sharply pointed petals. The blossoms are usually solitary and rise above the leaves on a slender stem, which springs with a

noticeable curve from one side of the centre of the leaf whorl. The long-pointed, green sepals alternate with the petals, and the ten, long, spreading, white, orange-tipped stamens are united in a ring around the pistil at their base.

INDIAN HEMP. AMY-ROOT

Apócynum cannabìnum. Dogbane Family.

This species is very similar to the Spreading Dogbane. The five-pointed, tubular flowers, however, are very small and greenish white and are borne erect in terminal clusters. The plant is somewhat less scrawly and grows from about one to four feet in height from a deep, vertical root. It is found in gravelly or sandy soils, chiefly near streams, and varies greatly. It flowers from June to August. The tip of the long, oval leaf is very sharply pointed, and the juice is milky and sticky. The tough-fibred stalks offer a substitute for hemp, and were employed by the Indians fo making twine, fish nets, baskets and kindred articles. The root is used in medicine to some extent. Indian Hemp is found in fields and thickets from Florida and lower California, northward into the British Possessions.

WHORLED MILKWEED

Asclèpias verticillàta. Milkweed Family.

This dainty, low growing Milkweed is characterized by the extremely small, narrow leaves which are arranged in whorls along the milky, swaying stalk.

The latter is very leafy, slender, and hairy and often branches sparingly at the top. It grows from one to two feet high from a cluster of roots. The delicate, thread-like leaves are nearly smooth, and from three to seven are grouped in circles, or occasionally they alternate. The margins are slightly turned backward. The many greenish white flowers are arranged in numerous clusters or umbels, and are set on slender stems both along the upper stalk and terminally. The oblong or egg-shaped parts of the corolla are greenish white, and the rounding oval or oblong white hoods are half as long as the incurved awl-shaped horn. It is found commonly in open woods and dry fields, on hills and prairies from Maine to Saskatchewan and south to Florida, Mexico and New Mexico, from July to September. This plant is used in the Southern States, where it is very common, as a remedy for snake bites and for relieving the bites or stings of venomous insects.

COMMON DODDER. LOVE-VINE. STRANGLE-WEED

Cùscuta Gronòvii. Dodder Family.

This is the commonest of our Dodders, and is found in twisted and tangled masses about herbs and low shrubs, during July and August, from Canada to the Gulf States. It is a variable species and is known as a parasite. Its seeds germinate annually in the soil and the plantlet promptly attaches itself to the nearest favourable growth which becomes its host. Its roots

and lower portion soon perish, and the vine then depends upon its numerous, minute suckers to absorb its nourishment from the host to which it is attached. It is a slender, high climbing, leafless, thread-like vine, varying in colour from yellow to orange, and producing numerous, dense clusters of tiny, dull white flowers. The little corolla is broadly bell-shaped with five rounded, spreading lobes containing five fringed scales, above which are inserted the five stamens. The minute calyx is greenish white. This Dodder is found chiefly in moist, shaded soil in low thickets and near streams.

BLACK, OR COMMON NIGHTSHADE

Solànum nìgrum. Potato Family.

A low, native, annual species growing one or two feet high in rich, shaded grounds from July to October. It is usually smooth, much-branched, and spreading. The thin, pointed-oval leaf is wavy-toothed, and is either narrowed or rounded at the base. The small, white flowers are similar in structure to those of the purple-flowered species, and the fruit is round, juicy and black. There is some question as to the extent of the poisonous qualities which have been attributed to this plant and its fruit. It is employed in medicine, and in the Isles of France and Bourbon as well as in the Hawaiian Islands, the leaves are said to be extensively used as food, being boiled like spinach. In the Dakotas, according to Professor Hansen, this plant is known as the Stubbleberry, and the fruit

is much used for pies and preserves. The Night-shade is extremely variable, and ranges from the Atlantic to the Pacific, and from Nova Scotia to the North-west Territory and south to the Gulf States. It is also a widely distributed and common plant in nearly all countries.

JAMESTOWN, OR JIMSON-WEED. DEVIL'S TRUMPET. STRAMONIUM

Datùra Stramònium. Potato Family.

The well-known, rank-odoured, showy-flowered Jimson-weed's chief occupation seems to be in hiding the unsightly scars created by ruthless man, in the shape of refuse piles, public dumps, and neglected barnyards. The dried leaves are smoked in a pipe by people seeking relief from asthma. The fruit is poisonous, and the flowers have been known to produce serious results when held in the mouth. This plant is a stout, smooth, bushy annual with a coarse green stem, growing from one to five feet high. The large, thin, smooth leaves are pointed-oval in outline with an irregular, wavy, toothed margin. They have a veined surface, and are long stemmed. The large, showy, Morning-glory-like white flowers, which open late in the afternoon, have a heavy odour, and grow erect and solitary from the forks of the branches. The large, tubular calyx is five toothed and angular. The five-pointed, funnel-formed corolla has a deep throat and contains five stamens and a pistil. The Indians call this species the "White Man's Plant."

It blossoms from June to September, and ranges from Nova Scotia to Minnesota, and south to the Gulf States.

CULVER'S ROOT. CULVER'S PHYSIC. BLACK-ROOT

Verónica virgínica. Figwort Family.

Bold and stately, this tall and rather stiff white-flowered perennial herb rears its wand-like spires from two to seven feet high in rich, moist woods, thickets, and meadows, from June to September. The plant is smooth, slender, and usually unbranched. The long-tapering lance-shaped, short-stemmed, sharply toothed, and noticeably veined leaves are arranged in circles of from three to nine. The numerous white or bluish, four-lobed, long, tubular flowers have two protruding stamens each, and are densely crowded on long, slender terminal spikes. This plant is said to have been used considerably as a remedy in domestic practice by the Indians and the early settlers. It is found from Canada to Alabama, Mississippi, and Nebraska.

CLEAVERS. GOOSE GRASS. CLEAVERWORT

Gàlium Aparìne. Madder Family.

This particular Bedstraw has literally more popular names than one could shake a stick at. No less than seventy have been recorded to its credit! The generic name, *Galium*, was mentioned by Dioscorides as being used for curdling milk. This is an annual species, having a small, weak, square stem with its edges armed with tiny downward-slanting barbs,

and grows from about two to five feet long. The short-pointed, narrow, tapering oval leaf is set in a whorl of six or eight at short distances along the stalk. Their margins and midribs are very rough. The inconspicuous, four-parted, white flowers are set in clusters of from one to three on rough stems that spring from the angles of the leaves. The juice of this plant is used as a remedy for dropsy. It is found from May to September in rich, shaded grounds and along the seashore, from New Brunswick to Florida, and from Ontario to Missouri and Texas.

STIFF MARSH BEDSTRAW. WILD MADDER

Gàlium tinctòrium. Madder Family.

This stiff, erect perennial species grows from six to fifteen inches high. The branching stem is nearly smooth, and the lance-shaped, dull green leaves are mostly in whorls of four. The white flowers are borne terminally in twos and threes. The Wild Madder is found from May to July, in damp, shady places, and in wet meadows and swamp lands, from Canada to North Carolina and Tennessee, west to Michigan, Nebraska and Arizona. The root of the Wild Madder was used by the Indians for staining their feathers, skins and other ornaments red.

SWEET-SCENTED, OR FRAGRANT BEDSTRAW

Gàlium triflòrum. Madder Family.

This is a perennial species, having its shining, broad lance-shaped, bristle-pointed leaves grouped

in whorls of three, and its greenish flowers usually in clusters of three. The foliage becomes sweet-scented in drying. It is found from June to August, from the Atlantic to the Pacific, and from Alaska to the Gulf of Mexico. Also around the world through northern Europe and the Himalayas to Japan.

PARTRIDGE-BERRY. TWIN-BERRY

Mitchélla rèpens. Madder Family.

One of our smallest, prettiest, and most common creeping herbs, having three conspicuous characteristics that make an otherwise insignificant vine of more than passing interest. First of all are the evergreen leaves; then the delightfully fragrant twin flowers: and, finally, relatively large, attractive scarlet fruit. The Partridge-berry enjoys a most luxuriant growth, extending itself from six to twelve inches in length. Its slender and often branching stalk trails along over the ground, or grass, or mossy rocks near its abode in a thrifty, self-satisfied manner, often forming large masses. The smooth, round, leafy stem takes root again and again at its leaf joints as it extends. It is light green in colour, and is sometimes stained with red. The leaves occur in opposite pairs at short intervals on tiny stems. They are small, shiny and dark green, with the under surface of a lighter shade. The midrib is prominent, and the veinings are easily traced. These ribbings in a lighter shade show plainly, giving the older leaves a variegated aspect. The leaves are generally rounding egg-shaped, at first almost round

and slightly heart-shaped at the base, and tapering toward a rounding apex. Their texture is thin and stiff, but exceedingly tough. The margin is toothless and occasionally a little wavy. The flowers, which appear from April to July and frequently again during autumn, are singularly pretty and interesting, and one cannot help comparing them instinctively with those of the Trailing Arbutus. They are noticeably large for the size of the vine and its leaves, and as they always blossom in pairs, this appearance is more striking. They exhale an exquisite and refreshing fragrance, not unlike that of lilacs. The flowers are funnel-shaped with four spreading, recurved, petal-like points, the inner surface of which is covered with a fine white or light creamish white, cottony fuzz that fairly fills the throat of the stout, waxy corolla. The outer surface of the tube is shiny and shades from white at its base to purple at the tips. The flower is half an inch long, and the tubes are often united, forming so-called double flowers. The little green calyxes of the twin flowers are united, and together they spring from the tip of the single terminal stem. The flowers are of two sorts. In one the stamens are very short and do not show, and the pistil is very long, extending beyond the corolla, while in the other, these conditions are exactly reversed and the dark-tipped stamens protrude. There are four stamens attached to the throat of each flower, one each between the divisions thereof. The pistil has a four-pointed style. The fruit is small, oval, and berry-like, and when it is

matured, it is a smooth and shiny coral-red, and has two eye-like openings. These red berries are abundant and conspicuous during the fall and winter, and are relished by birds and small animals. Indeed, there are few persons who roam the woods who have not indulged in this tempting yet quite tasteless fruit. It is often found on sale in the markets at holiday time. This vine is called sometimes the Squaw-berry, and it is said to have been steeped and used by the Indian squaws as a medicine which they commonly believed possessed some peculiar advantages. This plant is named *Mitchella*, after Dr. John Mitchell, of Virginia, one of our first American botanists, and who was a correspondent of Linnaeus. It has many interesting local names among which are Hive-vine, Squaw-vine, Checkerberry, Deerberry, Foxberry, Box-berry, Partridge-vine, and Winter Clover. It is easily transplanted and grows readily about the garden. It is found abundantly in the woods, often about the base of pine trees, and along partly shaded hillsides, from Nova Scotia to Florida, and to western Ontario, Minnesota, Arkansas, and Texas.

BONESET. INDIAN SAGE. AGUE-WEED. THOROUGHWORT. WILD SAGE. CROSSWORT

Eupatòrium perfòliatum. Thistle Family.

The very thought of Boneset will send a shudder through most everyone who has been "brought up" in the good, old-fashioned way. Wet feet and snuffles,

headache and cough, fever and ague, Boneset tea and goose grease! My, oh my! And yet Boneset tea certainly has a knack of rallying drooping spirits, and particularly so while it is being administered, for it is a horrible dose to take. However, it has long been regarded as a household remedy of no mean distinction. The Indians are said to have first used this plant and called it Ague-weed. Boneset taffy was often substituted for the tea and was easier to take. The latter was most effective in breaking up attacks of influenza, muscular rheumatism, or a general cold, and as a tonic in dyspepsia, jaundice, and general debility, also in producing perspiration. Yes, indeed, Boneset saved many a doctor's bill, and there is still many a bagful hung from the rafters in the garrets of old country homes. The large, round, hairy stalk grows from two to five feet in height, and branches at the top. The long, tapering, and slender-pointed leaves are set upon and around the stalk in opposite and completely united pairs. They appear like one long, continuous leaf with the stalk passing through its centre. They are finely notched with round-pointed teeth, and their upper surface is rough and wrinkled, with numerous veinings, while the under side is hairy. They alternate at regular distant intervals on the stalk. The numerous tiny, tubular florets are greenish white in colour, and from ten to sixteen are gathered in small, dense tufts, which terminate the branches in rather crowded, flat-topped clusters. The protruding stamens give the flowers a fluffy appearance. The

leaves and flowering tops are used in medicine; their odour is faintly aromatic, and the taste is bitter and astringent. Boneset is commonly found from July to September, in low, wet places along streams and on the edges of swamps and in thickets, from New Brunswick to Manitoba, Florida, Nebraska, and Texas.

WHITE SNAKEROOT. WHITE SANICLE. DEERWORT BONESET. INDIAN SANICLE

Eupatòrium urticaefòlium. Thistle Family.

A usually smooth and much-branched species growing from one to four feet high, with opposite, slender-stemmed leaves. It is a much more graceful and handsome plant than the common Boneset, and is not quite so frequently found. The large, thin, broadly oval leaves are taper-pointed, coarsely and sharply toothed, smooth surfaced, three-nerved and veiny. From ten to thirty tiny white florets are loosely grouped into small, fringy heads which are closely gathered in a terminal and somewhat flat-topped cluster. This plant grows from July to November, in rich woods, from Canada to Georgia, Nebraska, and the Indian Territory.

WHITE WOOD ASTER

Áster divaricàtus. Thistle Family.

A dainty, pleasing species of extremely varying habit, favouring the shaded portions of well-drained woodlands and thickets, but often found along dusty roadsides. The slightly zigzagged, brittle, green stalk rises from one and a half to two feet high, and branches

irregularly at the top. It is often streaked with a red or purplish stain. The thin-textured, rather smooth, slender-stemmed leaves are broadly lance-shaped, and have long, sharp, tapering points. The margins are coarsely and irregularly nicked with sharp, spreading teeth. They are broader and heart-shaped at the stem toward the base of the stalk. The flowers are loosely arranged in a broad, flattened, and repeatedly forked top. The few yellow disc florets finally turn to brown. The thin, narrow, white ray flowers number from six to twelve, and are occasionally tinted. This Aster is one of the earliest to blossom, and ranges from Canada to Manitoba, Georgia, and Tennessee, from August to October.

WHITE HEATH, OR FROST-WEED ASTER. FROST-WEED. MICHAELMAS DAISY. FAREWELL SUMMER. WHITE ROSEMARY. DOG-FENNEL. MARE'S TAIL. SCRUB-BRUSH

Áster ericoïdes. Thistle Family.

A common, small-flowered, and usually bushy Aster with its nearly smooth stalk rising from one to three feet, and covered with very small, bract-like leaflets. It is so closely studded with the prettiest little flowers that methinks it may well be the Christmas tree of Fairyland, spangled with starlets. The leaves are firm or rigid, and the lower ones are paddle-shaped with toothed margins and narrowed into winged stems. The upper leaves are long, narrow and toothless. The flower heads are very numerous and measure from one-third to one-half an inch across. From fifteen to

WILD CARROT. QUEEN ANNE'S LACE. Daucus Carota

BONESET. INDIAN SAGE. Eupatorium perfoliatum

twenty-five fine, white or rose-tinted rays surround the yellow disc florets. The flowers are thickly set along one side of the numerous, wire-like branches, and become very attractive as the majority bloom at about the same period. The rays are necessarily very fine. The yellow centre is plump and compact, and it resembles a miniature Daisy more than the general run of Asters. This Aster is found almost everywhere in dry soil, from August to October, and from Maine and Ontario to Florida, west to Wisconsin and Kentucky.

DENSE-FLOWERED, OR WHITE WREATH ASTER. FALL FLOWER

Áster multiflòrus. Thistle Family.

This tiny-flowered Aster is common in dry, open places from August to November, and grows from one to seven feet high, with ascending and spreading branches. It is so thickly covered with the finest whitish hairs as to appear pale and hoary. The leaves are very narrow and rigid, with entire margins, and they partly clasp the stalk at the base. They are rough to the touch, and those which are crowded on the branches are very small and bract-like. The minute flowers measure from one-quarter to one-third of an inch across and are densely clustered along the branches. They have from ten to twenty white rays and the yellow disc florets are few in number. The leaflets are so very numerous that notwithstanding the reckless profusion of the flowers, the plant shows much of the green

foliage. It ranges from Maine and Ontario to British Columbia, southward to Georgia, Texas, and Arizona.

WHORLED, OR MOUNTAIN ASTER

Áster acuminàtus. Thistle Family.

A low-growing woodland Aster with very large, sharply pointed leaves so closely alternated toward the top of the stalk beneath the flowers as to appear as though they were whorled. The flowers often have a scrawly, bedraggled appearance that gives the plant an untidy effect. The somewhat hairy and zigzag stalk grows from one to three feet high. It is generally naked below with the great, drooping leaves which spread from the crowded top in a ragged circle. The thin-textured, coarsely toothed leaves are broadly oblong, tapering at the apex and narrowing into a wedge-like base. The flower heads, few or several, are an inch or an inch and a half broad. The long, narrow rays, numbering from twelve to eighteen, are white or purple tinted and surround the purple-stained centre of tubular yellow florets. The flowers are set on long, slender stems that spread just above the clustered leaves. This striking Aster is found only in cool, rich, moist woods from Labrador to Ontario and New York, and southward along the Alleghanies to Georgia, from July to October.

DAISY FLEABANE. SWEET SCABIOUS

Erígeron ánnuus. Thistle Family.

The common Daisy Fleabane follows immediately upon the heels of Robin's Plantain in June. It is one

of the smallest of the Daisy-like flowers, having a light, greenish yellow centre with a finely fringed wreath of from forty to seventy fine white or often purple-tinged ray flowers. It is easily confused with others of its kind, owing to its similarity. The name Fleabane was applied to this plant because there was a popular belief among country people that the flowers possessed some objectionable features that caused undesirable insects to give it a wide berth. Accordingly the flowers were gathered and hung over the windows and doors, or they were dried and coarsely powdered and scattered about infected places in the house. Sometimes when the insects became too persistent, a few of the dried flowers were burned in the rooms so that the smoke would drive them away. The erect, light green stalk is long, slender, grooved, hollow, hairy and leafy. It grows from one to four feet high and branches at the top where several flowers are borne on each terminal. The thin textured, light green leaves are soft and velvety to the touch, and their strong midribs show prominently. They are generally lance-shaped, tapering toward the point and narrowing into a long stem at the base. The margin is coarsely notched into sharp teeth. The leaves graduate in size from the foot of the stalk, becoming very small and narrow, with the toothed margins disappearing entirely as they approach the top where they seem to set directly upon the stalk. Their arrangement is alternate. The flowers have a little odour and at night the ray flowers close upward, enfolding the centre. They are found almost everywhere

in fields and along roadsides and often along the edge of woodlands, from Nova Scotia to the Northwest Territory, and south to Virginia, Kentucky, and Missouri, from May to November.

PEARLY, LARGE-FLOWERED OR LIFE EVERLASTING. SILVER-LEAF. MOONSHINE. COTTON-WEED. NONE-SO-PRETTY

Anáphalis margaritàcea. Thistle Family.

This is the prettiest of our Everlastings. It is much used for making memorial wreaths, and for decorating vases or catch-alls on the mantelpieces in country houses. The little flowers have been likened to the forms of miniature Roses or Water Lilies. Before they open, they really have a round, pearly look. They also have a slight odour. The erect, round, cottony stem grows from one to three feet high and is leafy up to the spreading, flowering top. The toothless leaves are very long and narrow with a noticeable midrib. They are narrowed to the clasping base, and circle the stalk alternatingly. They are grayish green above and woolly beneath. The little flower heads are formed of many dry, pearly white, overlapping scales enclosing a tuft of numerous fuzzy, yellow tubular florets, and are borne in small groups that are gathered in a terminal, slightly rounded or flat-topped cluster. When fully expanded and matured, the centres become brownish. The flowers are both staminate and pistillate, and grow on different plants. They have been used in domestic practice as a cough medicine, and also as an application

for healing bruises. This Everlasting is common from July to September, in dry fields, hillsides, and recent clearings, from Alaska to Newfoundland, North Carolina, Kansas, and California, also in northern Asia. It was naturalized in this country from Europe.

PLAINTAIN-LEAF, SPRING, EARLY, OR MOUSE-EAR EVERLASTING. WHITE PLANTAIN. PUSSY-TOES. LADIES' TOBACCO

Antennària plantaginifòlia. Thistle Family.

Broad, white patches of this very common Everlasting carpet dry fields and hillside pastures almost everywhere during the early spring. It seems to come out of the ground with the frost and is the earliest of its kind to appear. It spreads its leafy tufts by runners, and the leafy, woolly stalk sprawls along the ground. The flowering stems grow from six to eighteen inches in height. The basal leaves are paddle-shaped, or broadly oval, and sometimes smooth. They have short stems and are distinctly three-ribbed. They are dark green above and silvery beneath. The upper leaves are oblong or lance-shaped, and stemless and usually small and distant. The numerous tubular flowers are set in their little pale green cups and are crowded into small terminal heads. They are of two kinds, pistillate and staminate, and occur on separate plants, often in distinct patches. The former appear like miniature inverted, silvery white tassels of silk, and the latter, on smaller plants, are more disc-like and creamy white with brownish, orange-tipped stamens. They are found from April to June in dry soil in

rocky fields and open woods, from Texas and Florida to Nebraska and Labrador.

SWEET, OR WHITE BALSAM. SWEET, OR FRAGRANT LIFE EVERLASTING. POVERTY. BALSAM-WEED. INDIAN POSEY

Gnaphàlium polycéphalum. Thistle Family.

A fragrant annual species with oval, or compressed oblong heads that do not expand until the seed is matured. The leafy stalk grows from one to three feet high. The lance-shaped, wavy leaves are acutely pointed, and are densely covered with whitish wool on the underside The yellowish white flower heads are composed of many tubular florets, and are loosely clustered at the summit of the branches. Sweet Balsam is very common in old fields and in dry, open woods from Florida, Texas and Missouri to Canada during August and September.

YARROW. MILFOIL. SANGUINARY. NOSE-BLEED. OLD MAN'S PEPPER. SOLDIER'S WOUNDWORT

Achillèa Millefòlium. Thistle Family.

The Soldier's Woundwort was dedicated to the mighty Achilles, who, it is said, made use of this plant at the siege of Troy to heal the wounds of his soldiers. Mrs. Dana says that it still forms part of the ingredients of an ointment used by the Scotch Highlanders. It was largely used in some localities for making bridal wreaths. The leaves and flowers have been used for almost every

ill that flesh is heir to. Yarrow tea is a mild tonic, and the green leaves when steeped in hot water are used in healing bumps and bruises. It has also been used in nosebleed and the green leaves are still used as a styptic in fresh cuts and wounds. In Sweden, Yarrow is used for making beer. Quaint old Gerarde mentions the chewing of the green leaves as a remedy for toothache. Timid people believed that when this plant was carried about the person, it would drive away fear and on this account it was frequently worn in times of danger. Susceptible maidens believe the plant to possess some mystic charm that can reveal their future lovers. And so on. Yarrow is naturalized from Europe and is found in flower everywhere in fields, along roadsides, and river banks from June to November. The erect, round, grooved, leafy stalk which is nearly smooth is single or forked near the top, and grows one or two feet in height from perennial, horizontal rootstocks. The long, narrow leaves are deeply cut into slender, balanced parts, each of which is again cut into very fine fringe. They are curled and feathery, and clasp the stalk at frequent intervals. The strong midrib is covered with whitish hairs on the under side. From four to six small, oblong, three-nicked, usually white ray florets surround the tiny head of perfect yellowish or brownish disc florets, and form the flower head, which sits in a little light green cup. These heads are borne in many small, compact groups which are gathered into one or more large, flat-topped, stiff-branched terminal clusters. Both the leaves and the flowers are pleasantly scented

with an aromatic odour. Yarrow is found from coast to coast and is one of our commonest wild flowers.

MAY-WEED. FETID CAMOMILE. DOG-FENNEL

Ánthemis Cótula. Thistle Family.

The pretty flowers of the May-weed bear a strong resemblance to the Daisy and are very often mistaken for it. They are much smaller, however, and the strong unpleasant odour of the May-weed's foliage immediately betrays it. Camomile tea, brewed from its leaves, was frequently administered for several bodily ailments in olden times. In California it is dried, powdered, and used for relieving colic. The fresh leaves are bruised and applied externally for producing blisters. The much-branched, smooth, annual stalk grows one or two feet in height and is very leafy and slender. The alternating leaf is so finely cut and divided that it is little short of a fringe, or as if it were simply the ribs and veinings of a leaf rather than a complete formation. It is somewhat coarse but has the appearance of delicacy. The flower is Daisy-like. The yellow disc florets are closely packed in a central, button-like head which is surrounded with a flaring circle of from ten to eighteen oblong, white, grooved, and notched ray flowers. The latter close abruptly downward against the stalk at night. The numerous flower heads are an inch broad. As the disc flowers mature, the yellow centre becomes cone-shaped and chaffy. The flowers, which are set in little green cups, terminate the branches. It is common from June to November along roadsides,

about buildings, and in waste places generally, throughout our area and Canada. It is also found in Europe, Asia, Africa, and Australasia.

DAISY. OX-EYE DAISY. WHITE-WEED

Chrysánthemum Leucánthemum. Thistle Family.

The fields, meadows, and roadsides of our more northern and eastern states and Canada are brightened from May to November with the beautiful, wheel-like, golden and white flowers of the Daisy. In June, when their flowering season is at its height, many of our fields are completely snowed over with their starry blossoms. During the annual graduation exercises at Vassar College, the famous Daisy-chain, an immense rope made from thousands of Daisies, is carried on dainty pillows which rest upon the shoulders of our fairest maidens, and their combined beauty inspires the beholder with an admiration for this flower that never wanes. Even country schools have their class mottoes or more frequently the word "welcome" reproduced in Daisies and strung across the blackboards on closing day. On Memorial Day, school children make wreaths of Daisies and decorate the graves of soldiers. Every lassie has "told her fortune" by plucking away the white "petals" one by one, to determine the pursuit of her future husband, while chanting:

> "Rich man, Poor man, Beggar man, Thief.
> Doc-tor, Law-yer, Mer-chant, Chief,"

or to tell whether her lover "loves me, or loves me not." Various other pastimes are indulged in by separating

the tiny yellow disc florets and throwing them over the shoulder from the back of the hand, and deciding by those remaining, any one of a dozen fancies. The Daisy is the state flower of Tennessee. In France, the Orleanists wear white Daisies. The usually simple perennial stem rises from one to three feet and is often tufted and nearly erect. It is sparingly leaved with partly clasping, generally lance-shaped leaves which are variously cut and notched with larger, spreading teeth at the base. The basal leaves have long, slender stems and are oblong, broader toward the rounding tip, and coarsely cut and notched. They are firm-textured, dark green, and strongly ribbed. The slightly hollowed, yellow centre is composed of many densely packed, tubular florets and is surrounded with from twenty to thirty beautiful, long, white, spreading ray-flowers. Their surface is slightly grooved and they are finely toothed at the tip. They are secured in a wide, flat, green support set singly on the tips of the stems. The Daisy is not so common south and west. It is naturalized from Europe.

RATTLESNAKE-ROOT. WHITE LETTUCE. LION'S FOOT. WHITE CANKERWEED

Prenánthes álba. Chicory Family.

The smooth, large, round, leafy, and commonly purple-stained stalk of the graceful White Lettuce grows from two to five feet high along woodland borders and thickets, during August and September, from Georgia and Kentucky to Canada. The alternating leaves

vary greatly in size and shape. The long-stemmed lower ones are large and broad, and are deeply cut and slashed. As they ascend the stalk, they graduate through several forms into small, lance-shaped leaves at the top, with entire margins. The numerous, fragrant, nodding, bell-shaped flower heads are greenish or yellowish white and often tinged with lilac. They are borne in loose, open, narrow, terminal clusters on slender stems that usually spring from the axils of the leaves. They are formed of from eight to fifteen drooping ray flowers, surrounded with eight principal, coloured bracts with several minute outer ones at their base. The cream-coloured stamens protrude with two spiral tips beyond the prettily curved corolla. The flowers are succeeded by a tuft of silky, cinnamon brown fluff. In certain parts of Virginia and North Carolina where this perennial herb grows, much faith is attached to it as a remedy for rattlesnake bites. The milky juice is taken freely internally, and the leaves are steeped in water which is locally applied and frequently changed. It is also used for summer complaint.

Section V

BLUE AND PURPLE FLOWERS

VIRGINIA DAY-FLOWER

Commelina virginica. Spiderwort Family.

THE attractive little petals of the Day-flower unfold but once and endure only for a few hours. That is reason enough for its common name, but there is quite another story woven about its generic title. It seems that Linnæus knew of three brothers, Dutchmen, named Commelin, who were botanists. Two of the brothers succeeded in publishing the results of their labours, but the third brother was a worthless sort of a chap, and did not pan out so well. The Day-flower, having two large, beautifully developed petals, and one small, insignificant, colourless one, suggested the application of the Hollanders' name, to whom it was dedicated by the great naturalist. The flower is a singular one. The two conspicuous petals are of an exceedingly fine texture and their colour is of the choicest shade of blue — an impressive blue, that one will always remember as being distinctly apart from the general run of floral blues. They do not dry and wither up, as do most petals, but deliberately shrink into a most hopeless, miserable, sticky pulp. The blossom has two large, showy, rounded blue petals that are erect and flaring, earlike, from between three unequal sepals. A third petal, colourless and inconspicuous, forms a very small tongue or lip. Its three perfect stamens are tipped

with five-parted petal-like yellow anthers having a cream-coloured centre, and three others are larger and recurved, without the elaborate tips. The smooth, juicy, and much-branched stem is rather weak. It is very slightly zigzagged, and the juice is thick like mucilage. It often takes root at the joints. The long, lance-shaped leaves are contracted at the base into sheathing stems. They alternate on the stalk. The floral one is heart-shaped, clasping and folded together or hooded to guard the short flower stems. The low-growing Day-flower is common throughout its range, in moist, shaded soils, particularly about old farm buildings, neglected gardens, or roadside fences. It is found from New York to Illinois and Michigan, south to Florida, Nebraska and Texas, from June to September. It extends also throughout Central America to Paraguay.

PICKEREL-WEED

Pontedèria cordàta. Pickerel-weed Family.

The ragged, bright blue floral spikes of the Pickerel-weed blossom from June to October, in shallow water along the borders of ponds and streams where, so the disciples of Izaak Walton declare, the Pickerel lays its eggs. The rather stout stalk is smooth, round and green, and grows from one to four feet in height. The large, solitary, smooth, arrow or heart-shaped, dark green leaf is thick, tough and leathery. The margin is entire; the veins are numerous and paralleled, and the thick, round stem sheathes the stalk, which rises

WHITE WOOD ASTER. Aster divaricatus

MAY-WEED. Anthemis Cotula

BLUE-EYED GRASS. Sisyrinchium angustifolium

from a horizontal rootstock. The two-lipped, slightly curved, tubular flower is unpleasantly scented, and fades rapidly after it opens. The three-lobed, upper lip is broad and erect, and the longest or middle lobe has two yellow spots at its base. The lower lip has three spreading divisions. The six stamens and pistil are bright blue. They are densely crowded in a blunt terminal spike, and blossom spirally. The flower stem is sheathed, about midway, with a small, green leaf. This species is often found associated with the Arrowhead, and ranges from Nova Scotia to Minnesota, and south to the Gulf States.

PURPLE TRILLIUM. BIRTHROOT. ILL-SCENTED WAKE-ROBIN

Trillium erectum. Lily Family.

The Trilliums are easily distinguished by the arrangement of their three drooping, toothless leaves in a whorl, at the top of a smooth, stout, and usually purple-stained stalk. The blossom has three flaring, pointed green sepals, with an equal number of petals which alternate with them; also six stamens and a three parted pistil. The root is deep-seated and tuberous. This species is very common throughout the Eastern States, and the rather large, dark purple or maroon flowers have a disagreeable, musty, fetid odour. It grows from eight to sixteen inches high, and the much veined, loose-textured leaves are very broad, often broader than long. The solitary flower is borne on a short, curved, erect or drooping stem. The lance-

shaped petals are a little longer than the sepals, and spread open nearly flat. The stamens have very conspicuous whitish anthers, and a prominent, purplish pistil. Singularly enough, the rank odour emitted by the flowers attracts the green fly, so commonly found wherever tainted or putrid meat and fish are exposed. The purplish oval fruit is often one inch long. The flowers vary, and are frequently pinkish, greenish or even white. Strange, too, that the dainty, chaste, and fragrant Lily of the Valley and this coarse-scented plant should belong to the same family. The astringent root of this species was highly regarded as a medicine by the Indians and the early settlers. It is still known as Bethwort, and is used as a tonic, and as a remedy for coughs and other throat afflictions. The plant blossoms from April to June in damp, rich, shady woods from North Carolina, Tennessee and Missouri, northward into Canada. Also in Japan.

LARGER BLUE FLAG. BLUE IRIS. FLEUR-DE-LIS

Iris versicolor. Iris Family.

The Iris, famous in the history of France, is named after the Greek god of the rainbow, which its various colours aptly suggest. It was considered peculiarly sacred in olden days, and seems to enjoy a somewhat classical dignity even to-day. Ruskin says that it is "the flower of chivalry" and has a "sword for its leaf, and a lily for its heart," but Thoreau, with less graciousness considered it "too showy and gaudy, like some women's bonnets!" The Indians, however, viewed it

from a more serious and practical side, and long ago used the root as a remedy for stomach troubles. Now the flowers furnish a fine blue colouring, which is used by chemists as a test for acids and alkalies. This highly ornamental species is found in low places, particularly in wet meadows and swamps, from May to July, and ranges from Newfoundland and Manitoba, south to Florida and Kansas. The long, narrow, pointed, sword-shaped light green leaves rise from a thick, fleshy, horizontal rootstock, which is covered with numerous fibrous rootlets. The leafy flower stalk grows two or three feet tall, and often branches for the blossoms. The large, handsome, plumy flowers are violet-blue, variegated with white, green and yellow. They are composed of nine petal-like divisions, which are divided into three distinct sets of three parts each. The three large lower parts are broadest toward the rounded tip, and are prettily spread and curved. They are violet coloured, with white and yellow markings, and purple veinings. The next three parts taper to a narrow base, and are much smaller, less spreading and nearly erect. They are violet coloured, with delicate purple veinings. The third set of parts represent the curious pistil, which is divided into three narrow arching sections, each curving outward and directly overlying the first three large parts beneath. These divisions are notched at the tips and are violet coloured — darker at the tips and purplish on the arch. Each of the latter parts hides a large, slender yellowish stamen. The magnificent flower is mounted on a three-angled,

green seed case which terminates the stem. Usually several buds are guarded with a pair of short, sheathing leaflets, and they blossom one at a time. About twenty species of Iris are found distributed throughout North America and the name *Fleur-de-lis* is generally applied to them all.

POINTED BLUE-EYED GRASS

Sisyrínchium angustifólium. Iris Family.

The pretty little blue, starry flowers of this familiar species peep up here and there through the grass of our moist fields and meadows from May to August, like so many golden-centred floral scarf pins. The blossoms expand only once, and even then require the bright morning sunshine to coax them fully open, so that their petals curve gracefully backward and expose their bright yellow eyes. The slender, rigid, two-edged, light green stalk grows from three to fourteen inches in height. It is usually winged and rarely forked at the top. The long, slender, sharp pointed grass-like leaves are mostly gathered in a sheath at the base. From one to three, six-parted, violet-blue, yellow-eyed flowers blossom one at a time, on tiny stems, which spring from a pair of sheathing leaflets at the top of the stalk. Each of the blunt oblong flower parts is tipped with a short, sharp, bristly point. They have three stamens and a pistil. This quickly perishing and very dainty little beauty is all the more lovely when we realize that it belongs to the Iris family and is related to the showy Blue Flag. It

is found from Newfoundland to British Columbia, Virginia, Kansas and Colorado.

SMALLER PURPLE FRINGED ORCHIS

Habenària psycòdes. Orchid Family.

This very pretty and rather slender-stemmed plant is generally smaller than the Large Purple Fringed Orchis and grows from one to three feet high, in wet woods, swamps and meadows, where it unfolds its fragrant, shorter-fringed lilac blossoms, during July and August. The smooth, angular, purple-stained stalk bears a few thin, tough and pointed-oval or lance-shaped leaves which are clasping and alternating. The flowers and their arrangement are quite similar to the following species. The petals are toothed, however, and the three-parted, fan-shaped divisions of the lip are not so deeply fringed, while the slender spur is more curved. Altogether this Orchid resembles its beautiful larger and earlier-blossoming sister so closely that it is often confused with it. Happily, the Smaller Purple Fringed species is very common and more easily found. It ranges from Newfoundland to Minnesota, and south to North Carolina and Indiana.

LARGE PURPLE FRINGED ORCHIS

Habenària fimbriàta. Orchid Family.

This magnificent Orchid grows from one to five feet high, in rich, wet woods and meadows, from June to August. It is the largest and handsomest of its genus, and is a prize that is well worth the wet feet and tem-

per-testing search, usually required to behold this one of the most beautiful of all our American wild flowers. The tall, leafy stalk is often deeply grooved and twisted, and grows from a fleshy root. The long-pointed, lance-shaped leaves are smooth, shining and strongly ribbed. They suddenly become very much smaller and narrower as they mount the stalk. The exquisite lilac or purplish flowers are laden with a heavy fragrance, and are loosely clustered in a large, thick, terminal, feathery spike, which is very, very showy. The upper petals and sepals are erect, flaring and connecting. The petals are oblong and more or less toothed. The widely spreading and highly coloured lip is cleft into three broad, fan-shaped divisions, each of which is finely fringed to about the middle. The long, slender spur is thread-like and curving. This tallest and grandest of the Orchids ranges from New Brunswick, Ontario and Michigan, south to North Carolina.

SAND SPURRY. PURPLE SANDWORT

Spergulària rùbra. Pink Family.

A little bit of a plant, growing from two to six inches high, either single or often forming dense little mats in waste places and along roadsides where the soil is dry and sandy, from Nova Scotia to Virginia, and Ohio. It has also been introduced into California and Oregon. It is a native of Europe and Asia. The rather fleshy, flat leaves are very small and narrow. They are arranged in pairs, and are sheathed at the joint. The five concave petals of the tiny flower are bright pink in

colour, and several yellow-tipped stamens are set effectively within the corolla. The tips of the five-parted green calyx just show at the edge of the blossom. One or two flowers open at a time throughout the summer.

The Salt Marsh Sand Spurry or Seaside Sandwort, *S. marina*, is a similar species, having numerous, lighter coloured flowers. The stalk is much branched, and grows from four to eight inches high. The leaves are very fleshy and the roots are fibrous. It is found in salt marshes along both the Atlantic and Pacific coasts, and in saline regions of the interior, during the summer.

HEPATICA. LIVERLEAF. KIDNEY-LEAF. NOBLE LIVERWORT

Hepática tríloba. Crowfoot Family.

The well-developed flower beds of the Liverworts can hardly await the final thaw and the first warm rain to start them as pace-makers in Nature's annual spring race for first honours. They are probably the earliest of our spring flowers, earlier even than the Bloodroot, and if we except the cold, stiff and unattractive Skunk Cabbage, the beautiful Hepaticas invariably lead them all. The buds must necessarily have many favourable conditions to cause their early appearance. The leaves of the passing year do not wither and dry up like those of most wild flowers. Instead, they survive the winter, and who will deny the reasoning that they contribute no small part toward the early appearance of the flowers. The evergreen leaves offer shelter from the frosts and assist in accumulating

a blanket of fallen leaves and similar litter, until they are covered by the snow and made triply snug and secure for the winter. Again in the spring these leaves are first to catch the warm rays of the sun, and the ground about them is first to become freed from the frost crystals and to arouse their roots to activity. It is interesting at this point to compare the appearance of the flowering buds of the Hepaticas with those of the Bloodroot. The flowers of the former rise direct from their fibrous roots, and the bud and stem are thickly covered with very fine fuzzy hairs, which have been likened unto a fur overcoat, intended to protect them from the cold, while the stem and bud of the latter, flowering somewhat later, are perfectly smooth and appear carefully folded in a leafy cape, which is forced up from a thick, juicy rootstock, purposely to protect it from the chilly spring air.

The blossom of the Hepatica has no petals. Its six to twelve delicate, coloured, oblong sepals may easily be mistaken for them as they are closely supported by three small, oval, hairy, reddish-green leaflets which, at the same time, might be mistaken for the calyx. Solitary flowers are borne on slender, hairy stems, some three to five inches in height. They are less than an inch broad, and exhale a delicate fragrance, although the odour is by no means constant. The blossom closes at night. The numerous greenish pistils and yellowish, hair-like anther-bearing stamens, are prettily clustered in the centre. The general colour of the blossoms varies from blue, lavender and pink, to

white, and they are found blossoming in scattered groups during March, April and May. The old leaves are broader than long, heart-shaped with three distinct lobes, and spring direct from the root on slender, hairy stems. The tough, rounded, purple-stained stems are grooved on one side. The old leaves spread upon the ground, and the new ones which immediately follow the buds form pretty, thick, rounded tufts. They are thick and leathery, and the older ones are usually strongly tinged with purple. In the fall, the following season's sprout may be found at the base of the tuft, in a fuzzy casing. During my winter rambles I often find their evergreen tufts associated with those of the beautiful Christmas Ferns. The Hepaticas grow in scattered patches in rich, loose soil, along the rocky hillsides of open woodland, where it is partly shaded. The leaves were formerly used as a remedy for torpid livers, and this custom is still said to be practised among the country people in Tennessee. *Hepatica* is from the Greek, meaning liver-like, and alludes to the shape of the leaves. This species grows perennially from Nova Scotia to Florida, and west to Manitoba, Iowa and Missouri. Its flowering period extends from December to May, according to its location.

PURPLE VIRGIN'S BOWER. PURPLE CLEMATIS

Clématis verticillàris. Crowfoot Family.

The Purple Clematis is much less common than the white-flowered Virginia Virgin's Bower, and grows

sparingly in rocky places in the more hilly country, from Hudson Bay to Manitoba, and southward to Virginia and Minnesota, during May and June. The large, prominent, solitary flowers are light purple or purplish blue in colour, and measure from two to four inches broad when expanded. The four long, tapering-oval, strongly veined, petal-like sepals are thin, translucent and pointed. Both sides are very downy or silky along the margins and veins. They are borne singly on long stems from the end of the vine, and from the axils or joints of the leaf stems. The true petals are very small, and spatulate or spoon-shaped. The many stamens are clustered in the centre, and are greenish white in colour. The ones forming the outer row are broadened. The flower is very showy, and is generally cup-shaped, with the ends of the sepals curved inward, but it often opens flat. The pistils are long, and ripen with long brownish-gray plumes. The leaf is similar to the Virginia Virgin's Bower, but rather smaller, and has three leaflets with either irregularly cut margins, or toothless, and slightly heart-shaped at the base. The texture is thin, and shows the network of veins plainly. The surface is slightly downy, and the stem is tinged with purple. The stiff, dried leaf stems of the previous season are often found still attached to the stalk among the new foliage. The stalk is smooth, woody, and brittle. It is a trailing plant, or semi-climbing in habit. If you are fortunate enough to find this magnificent flower it is well not to molest it nor to dis-

close its whereabouts, but, instead, cherish its discovery with secrecy and number it among your choicest and rarest wild flowers as one that demands your protection.

The Marsh Clematis, *C. crispa*, is our most beautiful Southern species, and bears large, fragrant, solitary, nodding, and bell-shaped flowers. They are bluish purple, and from three-quarters to an inch and a half long, with the petal-like sepals of thin texture, and widely spreading and backward curved from the opening of the cup which they form. Their broad margins are prettily crimped and wavy. The long tails of the seed cases are silky and less plumy than the foregoing species. The leaves are compound, and the three or more lance-shaped leaflets are generally entire or occasionally lobed and thin textured. This climbing vine grows three or four feet in length, and is found in marshes from southeastern Virginia to Florida and Texas, through May and June.

The Leather Flower, *C. Virona*, is found from May to August, climbing over bushes in rich soil, sometimes to the height of ten feet, from southern Pennsylvania to Ohio and West Virginia, south to Georgia and Tennessee, and also westward and northward. The solitary purple flowers are bell-shaped and nodding. They have no petals, but the four petal-like sepals measure about an inch long, and are pointed and usually slightly recurved at the apex. They are very thick and leathery. The flower is scentless. The

achenes or seed cases are short, stout and flat, and have long, feathery, pale yellow plumes by which they are carried by the wind to find a favourable spot where they may germinate and grow and increase their kind. The leaves are mostly compound, and the three to seven leaflets are oval and pointed, and their margins are either entire or lobed. This plant is probably found somewhat farther north and west. There are about twenty odd species of Clematis occurring through North America.

ORPINE. LIVE-FOR-EVER. LIVE-LONG. AARON'S ROD. MIDSUMMER-MEN

Sèdum purpùreum. Orpine Family.

This plant is probably better known to children as the "Pudding-bag," than by any other name. The thick, fleshy leaves are bruised in the mouth with the tongue until the skin separates bag-like, and then, by blowing in the open end they are inflated into so-called balloons or pillows. Orpine was formerly employed as a domestic remedy for healing wounds. The stout, branching, very leafy, pale green stalk is smooth and juicy, and grows from twelve to eighteen inches high. The smooth, broadly oval, alternating leaf has a coarsely toothed margin, and is thick and juicy. They are supported by a stout midrib, and clasp the stalk with an upward tilt. The purplish flower is small and has ten stamens and five sharply pointed and spreading petals. They are densely clustered in round terminal groups. The plant is reserved, however, in its flowering

habits, but is not easily discouraged in maintaining its livelihood, and spreads freely by its joints. It is common in fields and along woodsides from Quebec and Ontario, southern Maryland, and Michigan, from June to September.

WILD LUPINE. OLD MAID'S BONNETS. WILD PEA

Lupinus perénnis. Pea Family.

Lupinus is derived from *lupus*, a wolf, and was applied to this plant because the roots, which are deeply and firmly buried, were believed to rapidly exhaust the fertility of the soil. There might have been a time and place wherein its means of subsistence was begrudged. But it is certainly welcomed nowadays, when we are privileged to enjoy the azure reflections of its attractive, pea-like flowers along railroad banks and on dry, sandy hillsides and waste fields, where it gathers to bloom during May and June. The round, hairy, leafy, perennial stalk is erect and branching, and grows one or two feet in height. The slender-stemmed, wheel-shaped leaf is composed of from seven to eleven long, narrow leaflets, which are widest toward their acutely pointed apex. They radiate from the stem and are thin textured, light green and toothless. At night they fold together like an umbrella. The numerous, sweetly scented, butterfly-shaped flowers form a long, loosely clustered, showy terminal spike of vivid blue. They blossom in great numbers at about the same time, and produce a very striking effect. Wild

Lupine is found from Maine and Ontario to Minnesota, Florida and Louisiana.

PURPLE MEDIC. ALFALFA. LUCERNE. CHILIAN, OR BRAZILIAN CLOVER.

Medicàgo satìva. Pea Family.

This purple-flowered Clover is extensively raised in the Western and Southern States where hundreds of thousands of tons are annually harvested for fodder. It makes the best grade of hay, and has been cultivated for at least two thousand years. The smooth, slender, upright or ascending stalk is much branched, and grows a foot or more high. The three-parted leaves are short stemmed, and the leaflets much resemble those of the Stone Clover in a general way. They are a little broader, however, and the blunt apex is more abrupt and ragged toothed. The middle one is offset from the others in a little kinked stem. The joints are sheathed after the manner of the latter species, though slightly modified. The rather pretty flower head is composed of numerous violet, purple or bluish florets, arranged in several short, dense clusters on slender stems. The seed pod is curiously twisted into two or three spires. Alfalfa grows wild during the summer, in fields and waste places most everywhere from New England and Ontario, westward and southward.

TICKWEED. TICK-TREFOIL

Desmòdium nudiflòrum. Pea Family.

Every one of us who has tramped through the fields and woods during the fall has had occasion to

share Job's patience, while we picked, scraped and brushed the affectionate, triangular stickers of the Tick-trefoil that were everlastingly stuck to our clothes. It is a certain and easy means of identification, too. A number of species are distributed throughout the country. This one has a slender, naked stem growing direct from the root some two or three feet high, and bearing sparsely scattered, small, purplish, butterfly-shaped flowers, which are succeeded by flat, two or three jointed, deeply lobed pods. They are covered with minute hooked hairs that are directly accountable for their adhering qualities. The stout, shorter leaf stalk bears a terminal cluster of long-stemmed compound leaves, each having three pointed, egg-shaped leaflets with entire margins. They are thin textured, slightly hairy, and on the under side their colouring is lighter. Tickweed is common in dry fields and woods, from Quebec to Minnesota, south to Florida and Louisiana, during July and August.

TUFTED, COW, OR BLUE VETCH. TINE-GRASS. TARE

Vícia Crácca. Pea Family.

The bluish purple flowers of this weak, angular-stemmed, climbing or trailing perennial vine are profusely massed along the borders of thickets and in dry soils during June, July and August, from Newfoundland to New Jersey, and west to Kentucky, Iowa, and Minnesota. The compound leaf has from eighteen to twenty-four small, narrow, lance-shaped leaflets,

alternated along opposite sides of a slender stem which terminates in a tendril. The downy, thin-textured leaflets are acutely pointed and bristle-tipped. The main stalk is grooved, and grows from two to four feet in length. The small flowers resemble those of a bean, and are closely crowded along one side of a long curveing spike growing from the angles of the leaves. They are reflexed on the stem — that is, they are abruptly bent or turned downward and are not erect, like, for instance, the florets of a freshly opened Clover.

WILD, OR HOG PEANUT

Amphicárpa monoíca. Pea Family.

This ill-named, slender, sparingly branched climbing vine grows from one to eight feet in length. It is common everywhere in moist thickets and rich, damp woodlands during August and September. Three pointed, egg-shaped leaflets compose the compound leaf. They are smooth, thin, toothless and short stemmed. The delicate, light green alternating leaves are slender stemmed. The butterfly-shaped flowers are gathered in small, drooping, short-stemmed clusters, at the leaf angles. They are purplish or lilac, and precede the numerous small, hairy pods containing several mottled brown seeds. Rudimentary flowers are also borne on very slender, creeping stems at the base or root of the vine and ripen their fruit beneath the surface of the ground in the form of fleshy, pear-shaped pods. Pigs are notorious rooters after these subterranean Peanuts, and consequently country people began to

OX-EYE DAISY. Chrysanthemum Leucanthemum

LARGE PURPLE-FRINGED ORCHIS. Habenaria fimbriata

know this graceful, twining perennial as the Hog Peanut. It is found from New Brunswick to Florida, west to Lake Superior, Nebraska, and Louisiana.

THE VIOLETS

Violaceae. Violet Family.

Violets are probably the best and most popularly known of all the wild flowers. The Latin name *Viola*, is derived from the classic Greek, *Ion.* Jupiter, we are told, fell in love with Io, the daughter of the river god, Inachus, and in order to conceal her from the jealousy of Juno, his wife, Jupiter changed Io into a heifer, and then created the fragrant Violet that she might feed upon the delicate petals during her transformation. So runs this ancient Greek myth regarding the origin of the Violet. Be this as it may, Jupiter must have considered the creation of the Violet with exceeding affection for Io, since his irony is revealed later in the lines of Shakespeare, who regarded the Violet "sweeter than the lids of Juno's eyes." The Violet became the national emblem of the Greeks. They wove it into the chaplets with which they crowned both the living and the dead, as occasion required. The flowers were used extensively for decorating on gay, festive and holiday celebrations, and they also served an equal purpose in times of grief and sorrow as a fitting tribute to the departed. There was a superstition among the Greeks that the Violet possessed a charm that could stay the ill-effects of excessive indulgence in wine. Wreaths of Violets

were cast upon the cradles of children and the beds of young bridal couples much after the custom with which we shower the latter with rice and old shoes, as a token of good luck. The former ceremony is still practised in parts of Germany, where the Violet is also believed to prevent ague. The Violet has some religious significance among the followers of Mohammed, who considered the odour of the Violet, which he referred to as the "Flower of Humility," superior to all others. The Romans offered Violets of solid gold as prizes for poetic competitions. In England, broths, salads, and puddings were at one time flavoured with Violets, and many dishes were garnished with the flowers. Napoleon adopted the Violet as his emblem, and when he ascended the steps of the Tuileries, upon his return from Elba, he was greeted with showers of Violets from every direction, and beautiful violet-gowned ladies and children welcomed him with great masses of the flowers which were cast before him that he might tread upon them. In Paris, the statues commemorating the loss of Alsace and Lorraine, and the tomb of Victor Hugo in the Pantheon, are annually decorated with wreaths of Violets. In royal and in religious ceremonies violet is a conspicuous colour. It is the college colour of New York University. Yale University has adopted the Violet as its floral emblem, and it is also the state flower of Rhode Island. Several fragrant varieties have been highly cultivated, and are regularly sold by florists for every conceivable floral purpose, and they are popularly worn as a cor-

sage and buttonhole nosegay. The odour of Violets is one of the most popular known, and it is extensively used in scenting soaps, perfumery, and other toilet preparations. Candies, syrups, and cordials are flavoured with it, and even glacé or sugared Violets are sold at the confectioners. Over sixty thousand acres of flowers are regularly cultivated about the town of Grasse, in France, purposely for the manufacture of perfumery. Literally it is the "sweetest" spot in the world, and tons upon tons of Violets are annually gathered and spread upon frames of greased glass which catch and retain the minute particles of precious oil contained in the flowers — an industry involving hundreds of thousands of dollars.

BIRD'S-FOOT VIOLET

Viola pedàta. Violet Family.

There is no mistaking the identity of the Bird's-foot Violet. It appears later than the Meadow Violet, and its finely cut, dark green, thick-textured foliage, and large, beardless-petalled flowers are positive ear-marks of birthright. The leaf is deeply cut into from five to eleven long, narrow parts, with the longer middle ones having their ends notched with two or three rounded lobes, while the others have tapering points. When spread flat, the matured leaf is fan-shaped, and some of the divisions are grouped or separated from each other with a wider opening — a characteristic giving significance to its common name. The plant grows in a loose tuft, with its leaves spread-

ing widely and giving it a slightly scrawly appearance. The great, handsome flower is the largest of our Violets. It varies in colour from red violet to blue violet. Some varieties have the upper petals coloured dark purple, and the lower ones of a lighter shade. Rarely white flowers are found. The stamens are orange-tipped, and set off the regal beauty of the flower with their contrast. The lower petal is slightly grooved, and has a prominent, flat spur. The upper petals are curved backward, adding greatly to the general pleasing effect of the flower. This Violet frequently blossoms again in August. It does not produce stolens. It is partial to dry fields and hillsides, from Maine and southern Ontario to Minnesota, Florida, and Missouri, during April, May and June.

MEADOW VIOLET. COMMON BLUE VIOLET. HOODED BLUE VIOLET

Viola cucullàta. Violet Family.

This is the most common and best known of our Violets, and is found everywhere within its range, preferring generally low grounds in woods, meadows and marshes from Nova Scotia to Minnesota, and southward to Georgia and Kansas during April, May and June. It readily adapts itself to all conditions, and varies greatly in colour, size and leaf form, according to its situation. In boggy lands it produces ridiculously long, flowering stems, quite necessary, however, to raise its blossoms to the light, above the long grasses. In wet, swampy woods, forms having their leaves

twice as long as wide and nearly lance-shaped are found. The golden-centred flowers vary widely in size and colour, graduating in the latter from light purple to pale violet, and even striped varieties frequently occur. While they are found commonly in open, sunny places, Violets as a family are to be seen at their best where there is shade and moisture, and in the vicinity of cool streams and springs they are most beautifully developed. The lower petal is spurred, and, together with the two lateral or side ones, which are prettily bearded, have a flash of white at their base and are marked with dark purple lines. The stamens are tipped with orange. The rootstock is short and thick, and the foliage which closely surrounds the flowers is full bright green in colour. This Violet does not produce runners, but flowerless buds succeed the true flowers and mature without opening. The large, heart-shaped leaf is prominently ribbed, and has a toothed or scalloped edge. The surface is covered with very fine hairs, and before they are fully matured, the lobes of the leaves are curled upward. The flower stem is slender and smooth, and the leaf stem is grooved on one side, and both rise direct from the root.

EARLY BLUE VIOLET

Viola palmàta. Violet Family.

Although not so abundant as the widely distributed Meadow Violet, with which everybody is so familiar, the Early Blue Violet is very common. Its flowers are smaller, and the plant is more or less hairy, and alto-

gether it is more uniform and less variable, and prefers drier soil than the former. On the sides, toward the base, its peculiar leaves are strikingly notched into numerous irregular lobes that flare, heart-shaped at the stem. The centre of the blade is usually extended into a broadened and bluntly pointed lobe. The bright blue flower is occasionally paler and rarely white. The side petals are bearded. This species does not extend quite so far north as the Common Blue Violet, and it prefers dry woodland soil. It blooms during April and May, from Georgia and Arkansas northward to Minnesota, Ontario and Maine.

AMERICAN DOG VIOLET

Viola conspérsa. Violet Family.

It is whispered that this violet was formerly held in contempt by our English cousins because of its lack of fragrance. They referred to it as the Dog Violet, so that it might be distinguished from other species meriting more popular favour. However that may have been, we are disposed to extend much charity toward this interesting little waif, if for no other reason than the independence and freedom that it manifests whenever it brightens our roadsides and woodlands, from March to May. With us, the Dog Violet has become a popular nickname rather than one of mere caste. The leaves and flowers are small. The plant is low and creeping, and blossoms profusely. The slender flower stems spring from the angles of the leaf stems. The flowers have a prominent spur, and are

light purple or pale violet in colour, rarely white. The stamens are tipped with orange. The lateral petals are slightly bearded, and the lower one is marked with fine violet lines. The smooth, light green, rounding, heart-shaped leaves have finely toothed edges and grow in pairs. The base of the stems is sheathed with a small, pointed and toothed leaf-like stipule. The early leaf stems later develop creeping branches, and increase from two to six inches in length. In the fall this Violet bears flowerless buds on very short stems. It is fairly common in moist, shady situations, from Labrador to Minnesota, and south to North Carolina and Kentucky.

SEA LAVENDER. MARSH ROSEMARY. CANKER-ROOT. SEA THRIFT. INK-ROOT.

Limònium carolinìanum. Leadwort Family.

The misty, spray-like bloom of the Sea Lavender fits in nicely with the azure stars of the Chicory in an endeavour to harmonize the colour scheme of the sea and sky with that of the sandy shores. It grows abundantly in the salt meadows along the Atlantic seaboard from Labrador to Florida and to Texas. The slender, grooved, leafless stalk is much branched at the top, and grows one or two feet high from a thick, smooth, fleshy, perennial rootstock. The thick, narrow, oblong leaf is bluntly pointed, and tapers into a long, slender, margined stem, which rises from the root. The margin is slightly wavy, and the midrib is strong. The minute, solitary, pale purple flowers are

set erect and loosely along the upper side of the branches. The tubular calyx is five-toothed and finely ribbed. The corolla has five tiny petals. They blossom from July to October. The bitter root furnishes a powerful astringent which has been extensively employed, especially in New England, as a local application for relieving canker sores. The roots of a larger species is used in Spain and Russia for tanning hides. The Marsh Rosemary is an open, frail-looking plant, and as the fragrant flowers do not lose their colour, dried bunches are used for decorating vases and mantels, and are said to keep away moths. *Simonium* is an ancient name of the wild beet.

FRINGED GENTIAN

Gentiàna crinìta. Gentian Family.

This lovely Gentian has been considered one of the choicest of American wild flowers. There is never any certainty of finding it from year to year, because it does not establish itself permanently in any particular spot or locality. It has a general liking for low, moist woods and meadows, and is a late bloomer, coming into flower during September and October. It is rather rare in the vicinity of dense communities, and is likely to become even more so than the Trailing Arbutus, as it is extremely difficult to cultivate. This genera has been dedicated to Gentius, King of Ancient Illyria, who is said to have discovered its medicinal qualities. This species has been proposed as our

FRINGED GENTIAN. *Gentiana crinita*

national flower, and it has also been immortalized in our literature since Bryant wrote:

> "Thou waitest late and cometh alone,
> When woods are bare and birds are flown,
> And frosts and shortening days portend
> The aged year is near his end."

Artists consider that the blue of the Gentian is the nearest approach to the colour of the sky. The leafy, angled, and usually branching stalk is smooth and grooved, and grows annually from one to three feet high. The clasping leaves have a heart-shaped base and a long, tapering point. They are thin and toothless and are set upon the stalk in alternating, opposite pairs. There is something classical about the deep, vase-shaped corolla of the erect, bright blue flowers. They are mostly four-parted, and about two inches high. The four rounded and spreading lobes are finely fringed around the top edge, and are sensitive to the sunlight. They open and close with a twisting gesture at night, or on dull days. Each of the four-pointed parts of the calyx is ridged. The solitary flowers are borne on the tips of long and short branches, several of which are so closely parallel as to form a loose, upright group. They are found from Quebec to Minnesota, and south to Georgia and Iowa.

CLOSED, OR BOTTLE GENTIAN

Gentiàna Andréwsii. Gentian Family.

The singular flowers of the Closed Gentian have a curious attraction because they never open. They are

shaped like the thick part of a miniature Indian club and have the appearance of a large, healthy bud, that is just about to unfold. The plant is perennial, and consequently much more common and easier to find each year than the Fringed Gentian. It flourishes in moist, rich soil in meadows and thickets, or along woodland borders, and may be found at its best from August to October. The single, leafy stalk is erect, or nearly so, and grows one or two feet in height. It is smooth and stout. The rather large, toothless, lance-shaped leaves have a long, tapering point, and are narrow or sometimes rounded toward the base. They are arranged in alternating opposite pairs at regular intervals, and are often tinged with brown. The flowers are of an intense blue in colour, becoming lighter toward the base. Several of them are gathered in a crowded terminal leafy cluster, or occasionally one or two are set in the axils of the leaves. The stamens are gathered in the form of a tube, and the divisions of the green calyx are long and narrow. This Gentian ranges from Georgia and Missouri, well into Canada.

FORGET-ME-NOT. MOUSE-EAR. SCORPION GRASS. SNAKE-GRASS. LOVE-ME

Myosòtis scorpioìdes. Borage Family.

The exquisite little baby-blue flowers of the Forget-me-not have a certain sentiment attached to them through various legends of love and affection that endears them to all. In the language of flowers they

are symbolic of true love and constancy. A pretty Persian legend, told by the poet Shiraz, runs as follows: "It was in the golden morning of the early world, when an angel sat weeping outside the closed gates of Eden. He had fallen from his high estate through loving a daughter of earth, nor was he permitted to enter again until she whom he loved had planted the flowers of the Forget-me-not in every corner of the world. He returned to earth, and assisted her, and they went hand in hand over the world, planting the Forget-me-nots. When their task was ended they entered Paradise together; for the fair woman, without tasting the bitterness of death, became immortal like the angel, whose love her beauty had won, when she sat by the river twining the Forget-me-nots in her hair."

This species is a native of Europe and Asia, and is the true flower of our gardens, which has escaped, and is found in marshes and along brooks or in moist meadows from May to August. It is a low-branching perennial, having slender root-stocks or stolens. The slender, leafy stems grow from six to eighteen inches in length, and often take root again at the lower leaf joints. The oblong, lance-shaped, and hairy leaf has a blunt tip and partly clasps the stalk. The small spreading, five-lobed, yellow-centred, light blue, or sometimes pink, flowers are borne in small, one-sided, curving terminal clusters. The buds are tinted with pink. The Forget-me-not is spreading rapidly from Nova Scotia to New York, and Pennsylvania southward and westward. The

generic name, *Myosotis*, is from the Greek, meaning Mouse-ear, and alludes to the leaves.

VIRGINIA COWSLIP. TREE LUNGWORT. BLUE BELLS

Merténsia virgínica. Borage Family.

The beautiful, showy, blue-purple bells of the Virginia Cowslip delight the eyes of those who are fortunate enough to stroll along the brooks of some low meadow during the spring when this plant is in flower. The smooth, stout, pale green stalk is either single or branching and grows one or two feet high. The large, veiny, pointed oblong or oval leaves are dark green and toothless, and they alternate upon the stalk. The upper ones are seated upon the stalk, and the lower ones are narrowed into long stems. The pretty five-lobed, spreading, trumpet-shaped flowers are an inch long, and are gathered in a loose terminal cluster, from which they spread or hang. They are pinkish in bud, becoming purplish when in blossom, and finally bluish as they fade. This handsome perennial is a lover of moist, wet situations, and often grows in great masses. It blooms from March to May, from New York and South Carolina to Kansas, Nebraska, Minnesota and Ontario.

VIPER'S BUGLOSS. BLUEWEED. SNAKE FLOWER. BLUE THISTLE

Èchium vulgàre. Borage Family.

In some sections of the country, this plant has been regarded as a troublesome weed, and one that is not easily discouraged by frequent attempts to eradicate it

from cultivated fields, which it has overrun since its introduction from Europe. The flower lover however, will always welcome it along our highways and byways, inasmuch as our flora is not over-toned with true blues. The stout, bristly-haired biennial stalk is much branched, and its light green surface is dotted with red or purple. The alternating rough and hairy, oblong or lance-shaped leaves are toothless and clasp the stalk, and the lower ones are narrowed into short stems. The numerous, brilliant blue, tubular, funnel-formed flowers are unequally five-lobed. The latter are rounded and spreading. They are at first bright blue, varying to reddish purple. The five slender stamens and the pistil are rosy tinted, and project beyond the corolla, adding much to the general fuzziness of the plant. The flower buds are pink before they finally expand, and the numerous buds are closely arranged in a double one-sided row along the ends of the branches which are tightly curled. A few flowers on each cluster open at a time, as the stem gradually straightens. These floral clusters are closely grouped on the stalk, and at a distance from the large, thick, clumsy spike. The entire plant is so bristly that it is not likely to become a popular bouquet flower. It is found from Canada to Virginia and Nebraska, from July to September.

BLUE VERVAIN. WILD HYSSOP

Verbèna hastàta. Vervain Family.

During July and August we find the Blue Vervain with every one of its slender, upright branches terminat-

ing in numerous long, beady, rocket-like, flowering spikes, each so lengthened and regulated as to form an elaborate, equally balanced, floral candelabra. It is a handsome perennial, growing from three to seven feet high in moist fields and meadows, or along railroads and highways. The stout, rough, leafy stalk is four-sided and grooved, and is often stained with red. The opposite lance-shaped leaves are irregularly double-toothed and taper-pointed, with noticeable veins. They are short-stemmed and rough surfaced, and the lower ones are sometimes lobed or arrow-shaped at the base. The five-lobed tubular flowers are very small, and several open at a time in a single circle as they mount the extending, purple-stained spike. They are deep purplish-blue in colour, and have a pistil and two pairs of stamens. As the flowers continue to blossom toward the top of the spike, they are succeeded by ripening seed enclosed within the overlapping, purplish calyx, which lends much to the attractiveness of the royal colour scheme. Vervain is also known as the Holy Herb, and was one of the religious plants of the Druids. Long, long ago, Vervain was held sacred to Thor, the god of thunder, and like other plants connected with lightning, it was supposed to possess peculiar influences upon the eyesight. It is also said to have been found growing upon the Mount of Calvary when Jesus died. On account of its mystic virtues, it was formerly much used for stimulating affections and charms. It was reputed to break the power of witches. In France, it is gathered under certain changes of the

moon with secret incantations, after which it is supposed to accomplish remarkable cures. Bridal wreaths made of Vervain are used in Germany. It was one of the most important assets of the old herb doctors who were called "Simplers," and who professed to cure everything that flesh was heir to. Virgil and Shakespeare both mention Vervain in their writings. The Wild Hyssop, as it is sometimes called, is found from Canada to Florida, Nebraska and New Mexico.

BLUE CURLS. BASTARD PENNYROYAL

Trichostèma dichótomum. Mint Family.

This rather stiff, slender-stemmed, sticky haired, strong-scented, and much-branched annual grows from six inches to two feet high in dry, sandy fields. The toothless, short-stemmed, and nearly smooth, lance-shaped leaves occur in opposite pairs. They are sticky haired, and exhale a balsamic odour, coarsely suggesting that of Pennyroyal. The numerous blue, pink, or rarely white, deeply five-cleft, tubular flowers have ridiculously long, hair-like blue or violet stamens, which extend far beyond the corolla. When the flower opens they are nearly erect, but soon curl gracefully inward, forming a large spiral. The lobes of the corolla spread open, and the lower and longer one is widely flared like a long tongue or lip. They terminate the branches, usually in pairs, and opening in the morning, last only for the day. Some of the flowers grow upside down, owing to the peculiar twisting of their short stems. They blossom from July to October, and

range from Maine to Florida, and west through Pennsylvania, Kentucky, Missouri and Texas.

MAD-DOG. SKULLCAP. MADWEED. HOODWORT

Scutellària lateriflòra. Mint Family.

A well-known, perennial herb, formerly esteemed as a remedy in dog-bites. It was also used as a family medicine for nervous disorders of every description. This species grows commonly in moist, shady places, along ditches and ponds, where it raises its slender, smooth, square, leafy, and much-branched stalk a foot or two high. The thin, coarsely toothed, slender-stemmed leaves are pointed oblong to lance shaped, and are arranged in opposite alternating pairs. The several or many small, tubular, blue flowers are two lipped. The upper lip is arched and the spreading lower one is notched at the apex. The two-lipped calyx has a small, helmet-like appendage on the upper lip, which is an easy means for identifying the genus. The flowers spring from the axils of the uppermost leaves, on one-sided, terminal branches, from July to September. This species ranges from coast to coast, and from the British possessions south to Florida, New Mexico and Washington.

CATNIP. CATMINT. NEP

Népeta Catària. Mint Family.

Country folks who have drifted to the great cities will never forget how Aunt Kate or Aunt Sue used to soothe

HEPATICA. Hepatica triloba

CLOSED, or BOTTLED GENTIAN. Gentiana Andrewsii

our troubled and aching stomachs with Catnip tea. We relished its flavour for it tasted so good. First it was green apples or green grapes — then Catnip tea. Again wet feet and snuffles — then, more Catnip tea. And ofttimes it was just Catnip tea for the sake of drinking it. Grandmother will tell you that it is the safest remedy for quieting little babies when they are in pain. Cats display an exceedingly strong liking for this plant, and will eat it and roll into it almost as easily and naturally as they will take to a bird or a mouse. You can always distinguish a member of the Mint family by its usually four-sided or square stem, and its simple opposite leaves. The pleasing, aromatic odour, peculiar to the Catnip is familiar to most everyone wherever it grows. The large, leafy, hollow, branching stalk is distinctly square and grooved. It rises from two to three feet high, and the downy branches are straight and ascending. The fragrant, short-stemmed, grayish green leaves are generally heart-shaped, with large, sharp-pointed, saw-toothed margins. They are greener above than beneath, and the surface is velvety, and they occur at right angles on the stalk. The dark-spotted, pale purple or nearly white tubular flowers are rather small and inconspicuous. They are gathered in whorled clusters, which are set in short, dense terminal spikes. They are strongly two-lipped. The erect upper lip is two-lobed, and the spreading lower lip is three-lobed, with the central lobe largest. The small, hairy, green calyx is five-parted. Catnip is frequently found near dwellings and barns, and along

roadsides, from July to November, and ranges from New Brunswick and Quebec, to Virginia and Kansas. Also in Asia.

GROUND-IVY. GILL-OVER-THE-GROUND. FIELD BALM. HAYMAIDS. CAT'S FOOT. CREEPING CHARLIE

Népeta hederàcea. Mint Family.

This gallivanting perennial came to us from Europe, and delights to trapse over moist, shady dells, thickets, and turnpikes, where it blossoms gaily during the spring months. It is an old and familiar herb, formerly much used as a "simple" in those homely days when hospitals were few and far between, and skill and scalpel were less in vogue in the medical line, and "Angels with lint and lance, and God's messenger, the ambulance," were blessings yet to record. Dear, quaint, old Gerarde! Quoth he: "Boiled in mutton-broth, it helpeth weake and acking backs." It has a peculiar, disagreeable odour, and a bitterish, somewhat aromatic taste, and cattle purposely avoid it. As a domestic remedy it is said to be a gentle stimulant and tonic, and useful in lung troubles. The creeping and trailing stalk grows sometimes eighteen inches in length, with ascending branches. It is square and leafy, and roots at the joints. The small, roundish, evergreen leaves are set in pairs, on long, slender, curving stems, which are flattened and grooved on one side. They are heart-shaped at the base, and their margins are cut with broad, rounded scallops. Their surface

is soft and downy to the touch. The rather large, light, bluish purple, tubular flowers are two-lipped. The upper lip, which arches over the four unequal stamens and pistil, is erect and notched at the middle. The spreading lower lip, which is spotted with dark purple, is three-lobed, the middle one being much enlarged. The long, ribbed, tubular calyx is unequally five-parted. The flowers are borne in sparse clusters from the axils of the leaves. The Ground-ivy often forms dense, green mats, and is found in blossom from March to May, from Newfoundland, Ontario and Minnesota, south to Georgia and Kansas.

SELF-HEAL. HEAL-ALL. BLUE CURLS. THIMBLE-FLOWER. ALL-HEAL. CARPENTER'S-HERB. HEART-OF-THE-EARTH. BRUNELLA.

Prunélla vulgàris. Mint Family.

One of the commonest and most widely ranged of all plants. Along dusty roadsides, cowpaths, and in fields, woods and waste places everywhere, this familiar, low-growing perennial flourishes with little effort. The thick, round, elongated flower head blossoms sparingly as it lengthens, from spring to fall. The usually smooth, slender, leafy and occasionally branching stalk, is usually too weak to hold itself erect, and lies sprawling in the grass. The four-sided stalk is deeply grooved on two opposite sides. The smooth, oblong, lance-shaped leaves have a long, tapering tip and a narrowed base. They are rather thin, and their margins are often slightly toothed. They occur in

alternating opposite pairs on slender stems. The small, violet, purple, or rarely white, hooded, tubular flowers are gathered in dense terminal spikes, suggesting a Clover head. They are strongly and irregularly two-lipped. The darker toned and deeply arched upper lip is hood-like. The spreading lower lip is three-lobed, with the edge of the middle and longest lobe, fringed. The four unequal stamens and pistil show within the arch of the upper lip. The oblong calyx is deeply cleft into two unequal parts, and is guarded at its base with a broad, heart-shaped bract. The flowers may be found from April to October, and from one end of the country to the other. In Germany this plant formerly had a reputation for curing throat diseases. It has also been used in healing wounds, and for making a gargle for sore throats.

AMERICAN, OR MOCK PENNYROYAL. TICK-WEED. SQUAW-MINT

Hedeòma pulegioìdes. Mint Family.

There is small chance of overlooking this little member of the Mint family because of its size. Whatever it lacks in this respect, it more than makes up for in the familiar fragrance exhaled by its foliage. Its pleasing, aromatic pungency permeates the atmosphere for a considerable distance, and is always sure to attract the attention of the passer-by. The odour is believed to keep away mosquitoes, and for this purpose the oil of Pennyroyal is popular with hunters, campers and summer vacationists. It is also used as a gentle

stimulant, and for relieving cramps and sick stomachs, which children are prone to experience. It has a pleasant taste, and there is no harm in nibbling its leaves as we do those of the Wintergreen. The erect and very slender, leafy stalk of this annual herb is branching and hairy, and grows from six to eighteen inches high in dry, grassy fields and pastures. The small, strongly scented leaves are somewhat egg-shaped, tapering at the base into short stems, and their margins are scantily toothed. They occur in alternating, opposite pairs, which graduate in size as they mount the square stalk. The tiny, two-lipped, tubular, purple flowers are gathered in the axils of the leaves, and form long, slender, terminal spikes. The erect, upper lip is usually flat and notched, and the lower one is three-lobed and spreading. It is found from July to September, from Canada to Florida, and westward to Nebraska and the Dakotas.

SPEARMINT. SAGE OF BETHLEHEM. GARDEN MINT

Méntha spicàta. Mint Family.

We have inherited nearly all of our Mints from Europe. Their strongest family traits consist of square stems, and opposite, simple, and odorous leaves. They are perennial herbs, with usually small-clustered, tubular flowers. The Spearmint grows commonly in wet places near cultivated grounds, where it has escaped from gardens, and may be found in blossom from July to September. This generally smooth, erect, and

branching plant grows a foot or so high, from leafy runners or stolens. The sharply toothed, lance-shaped leaves are pointed at the tip and narrowed at the base. They are noticeably veined, and are set in alternating pairs upon the stalk, sometimes with short stems. They have a strong, aromatic taste, and are much in favour as a flavouring for meat sauces and cooling drinks. It is also used to some extent in medicine. The very small, pale purple, four-cleft, tubular flowers, are set in a tiny, five-parted, bell-shaped green calyx, and are gathered in small whorls, one above the other, with a space between; forming long, slim, terminal spikes, the central spike becoming very long. This Mint is found from Canada south to Florida and Kansas and west to Minnesota and Utah.

PEPPERMINT. LAMB, OR BRANDY-MINT

Méntha piperìta. Mint Family.

Peppermint is one of the most popularly known flavourings for candies. The plant is extensively cultivated for the strong aromatic oil which it produces, and in this respect it ranks as one of the most important of all plants. This oil is used very extensively in medicines, and for the production of menthol. The cultivation of this species was carried on long ago by the Egyptians. It has a peculiar, penetrating odour, and is pungent and cooling to the taste. In medicines it is used as a stimulant, to allay nausea, and to relieve sudden cramps or pains in the stomach. Peppermint grows from one to three feet high in wet soil, and along

brooks, where it may be found from July to September. It is erect and branched, with smooth stems, and increases by underground suckers. It resembles somewhat the Spearmint. The thin, broad oval, sharply pointed dark green leaf is set on purple stained stems, and is regularly toothed. The tiny flowers are arranged in dense whorls, which are closely gathered in a short, thick, round, terminal spike. It ranges from Canada to Florida, Tennessee and Minnesota. *Spiraea* is from the Greek, meaning, twisting, and alludes to the twisted seedpods in some of the species.

AMERICAN WILD MINT

Méntha arvénsis. Mint Family.

A native variable species with an odour like Pennyroyal, growing commonly along the brooks and in moist soils, from six inches to two and a half feet in height, with the whorled flowers seated in the leaf-axils. It is more or less hairy. The long, narrow, prominently ribbed leaf tapers toward both ends, and is slender-stemmed and sharply toothed. The texture is coarse and the surfaces are either roughish or nearly smooth. The little flowers are light purple or nearly white. This plant is frequently mistaken for Peppermint, for which it is sometimes substituted. It may be found from July to October, and ranges from the British possessions to Virginia, Nebraska, New Mexico and Nevada. It is also found in California. This is the only Mint that is truly native to our country. *Mentha* is derived

from Mintha, the Greek nymph and daughter of Cocytus, whom Prosperine, the wife of Pluto, is said to have transformed into these plants.

NIGHTSHADE. BLUE BINDWEED. FELON-WORT. BITTERSWEET. POISON-FLOWER. POISON, OR SNAKE BERRY

Solànum Dulcamàra. Potato Family.

This pretty Nightshade has been classed among the principal poisonous plants of our country, but it is far from being the treacherous and violent sort with which it has often been associated in folk-lore. It is not of the Poison Ivy sort, and can be handled with impunity in this respect. At the same time one should refrain from testing its effects upon the system. It should not be held in the mouth nor chewed, neither should the berries be eaten, as some ill effects have been caused thereby. It is rather common in moist thickets and along damp, shady roadsides, streams and ditches, from May to September. The smooth or finely-haired, green stalk grows from two to eight feet in length, and is perennial. It is branched, straggling and climbing, and has a rank, coarse odour. The thin, alternating, dark green, toothless leaves taper toward the tip and are set on slender stems. The lower ones are usually heart-shaped while the upper ones are deeply cut at the base into two narrow, flaring lobes or wings with pointed tips. The veinings show on the under side, and the midrib is coarse. The surface is frequently marked with irregular, pale rusty spots. The enticing, yellow-

centred, purple flowers have a star-shaped corolla, and are set in a small, green, five-parted, bell-shaped calyx. They hang gracefully on their curved stemlets in small. loose, spreading and nodding clusters, from a slender stem which springs from the axils of the leaves. The five deeply cleft and pointed segments of the corolla are prettily recurved, and at the base of each there are two green spots. The five yellow stamens project with their anthers united in the form of a cone. The bright red berries form very attractive drooping clusters in the fall. Nightshade is found from New Brunswick to Minnesota, and south to North Carolina and Kansas. The plant has a peculiar juice which is at first sweetish to the taste, then soon becoming bitter and it has also some medicinal qualities. It is related to the potato, tomato and egg-plant of our gardens, and is naturalized from Europe.

BLUE, OR WILD TOAD FLAX

Linària canadénsis. Figwort Family.

Here is an extremely dainty and slender white throated blue-flowered relative of the notoriously common Butter-and-Eggs, and it is found in dry, sandy soils from May to September. The slim, delicate, smooth and shining green stalk is often branched, and grows from four inches to two feet or more in height, annually or biannually. It is weak-stemmed, and is often found supported by neighbouring vegetation. The alternating, toothless leaves are very small, stemless, and sharply pointed. The pretty little tubular flower is two lipped,

with a slender, sharply-pointed, curving spur. The upper lip has two small, rounded and erect lobes. The lower lip has three rounded, spreading lobes, and at the throat there is a prominent, white, two-ridged swelling that hides the stamens and pistil. Several flowers are set on tiny stems in a loose terminal spike. They remind one somewhat of the Lobelias, but are easily distinguished by the rounded lobes of the corolla, while those of the latter flower are always sharply pointed. This species is found from Nova Scotia to Florida, and west to Minnesota, Oregon, Texas and California.

HAIRY BEARD-TONGUE

Pentstèmon hirsùtus. Figwort Family.

The beautiful showy purple or violet trumpets of this rather common Beard-tongue are found from May to July in dry, open woods and rocky fields and thickets. The stalk rises from one to three feet high, and is slender and downy, with fine whitish hairs. The slightly toothed, pointed oblong to lance-shaped light green leaves are somewhat woolly, and vary in size and shape as they mount the stalk in opposite pairs. The upper ones are clasping, and the lower ones are stemmed. The flowers are borne in a loose terminal spike. The five sharply pointed sepals are overlapping. The tube of the corolla is gradually swelled above, and has two grooves on the lower side. The upper lip is two-lobed, and the lower one is three-cleft. At the base of the latter is a hairy palate that nearly closes the throat. One of the stamens is densely bearded

for half its length. This species ranges from Maine to Manitoba, south to the Gulf States.

MONKEY FLOWER

Mimulus ringens. Figwort Family.

With erected ears and extended jowls, this gaping, grinning ape of the damp, grassy jungle greets us cutely with its impudent, animated poise, from June to September. If its lower lip is pulled downward and allowed to close again, the operation causes one to experience a strong inclination to yawn. And right here, this same operation fancifully suggests an exaggerated grin that has given rise to its Latin name, which is derived from the Greek, *mimus*, a small, mimicking ape or buffoon. The square-stemmed Monkey Flower is usually found in moist meadows or swamp land, particularly along cool streams and in company with rank growths of grass and other vegetation peculiar thereto. Here their pertinent, inquisitive flowers seem to strain their tethers in an effort to satisfy their apparent curiosity at one's presence. The attractive blossoms open one or two at a time toward the top of the slender, leafy stalk. Their pale violet or occasionally white corolla appears delightfully cool and cheerful on a hot, midsummer's day, and it is a pleasant relief to come unexpectantly upon them, as is often the case when the path follows along the near bank of a stream. The smooth, hollow stalk is erect and rises from one to three feet in height. Two of its sides are flattened, and the other two are deeply grooved. These flattened surfaces alternate

with each pair of leaves. The oblong, or lance-shaped leaves taper to a point, and become narrow toward the base, each with two small flaring lobes where they partly clasp the stalk, upon which they alternate. The margins are finely toothed, and the feather-veined ribbings crease the smooth, green surface. The flowers spring from the axils of the leaves, on partly curved, slender stems, and are set in a deep, five-parted, five-toothed tubular calyx, the uppermost tooth of which is longer than the others. The irregular corolla is two-lipped. The upper lip has two erect lobes which curl backward together, causing a two-eared effect, while the lower lip has three widely flaring lobes, with its centre bulged, forming two small, yellow-patched swellings that close the throat of the tube, which sets into the calyx. Four white, thread-like stamens are seated on the inside of the tube, and their yellow tips meet over the top of the two-lobed pistil. They are arranged in two pairs, one set being shorter than the other. Neither the pistil nor the stamens protrude from the corolla, but may be seen flattened against the hooded crease of the upper lip, if the lower lip is pulled partly open. The texture of the flowers is fine and delicate. This perennial herb ranges from Nova Scotia to Virginia, Tennessee, Manitoba, Nebraska and Texas.

AMERICAN BROOKLIME

Verónica americàna. Figwort Family.

Exceedingly fragile, this nobbiest one of our Speedwells drops its tiny, white-centred, light blue

flowers the instant we attempt to pick them. They have frequently been mistaken for those of the Forget-me-not by careless observers. It is common in wet ditches and swamps and along meadow brooks from April to September. The rather stout, smooth, hollow stalk is usually branched, and grows from six inches to three feet in length from perennial creeping roots or leafy shoots. The weak, sprawling stalk often takes root at the lower joints. The long, lance-shaped, light green leaves are sharply toothed, and taper toward the point. They are rounded at the base, and are set on the stalk in alternating opposite pairs, with short, broad, flat stems that clasp the stalk. Their surface is smooth, and the midrib is strongly grooved. The flowers are similar in structure to those of the Common Speedwell, but are light blue with purple stripes, and have a white spot in the centre. The two stamens and pistil are light purple. The flowers are set on slender stems which are guarded with bract-like leaflets, and are arranged in long, loose terminal spikes that spring from the angles of the leaves. They are found from Alaska to New Mexico, and from the Atlantic to the Pacific.

COMMON SPEEDWELL. UPLAND SPEEDWELL. FLUELLIN. PAUL'S BETONY

Verónica officinàlis. Figwort Family.

Dear little Speedwell! How much good-fellowship its name implies! Before the steam engine became a convenient means of transportation, many a weary and

foot-sore traveler has been cheered and encouraged as he trudged the by-paths of country highways, by these little bright blue blossoms, or as Tennyson says, "the little Speedwell's darling blue." There is an ancient tradition regarding this flower that is connected with our Lord. When bearing His cross to Calvary, He happened to pass the door of Veronica, a Jewish maiden, who, seeing the drops of agony on His brow, wiped His face with a linen cloth. The sacred features remained impressed upon the linen, and owing to the fancied resemblance of the Speedwell's blossom to the markings on this hallowed piece of fabric, the plant was named Veronica. This relic is known as the kerchief of St. Veronica, and still reposes, it is said, in St. Peter's Cathedral in Rome. Small wonder, then, that this plant was believed to possess miraculous virtues for curing various bodily ailments. Even now it is used as a tonic and cough medicine, and also for healing wounds. The Common Speedwell is found in blossom from May to August along roadsides and in dry fields, uplands and open woods, from North Carolina and Tennessee to Michigan and Canada. It is a low-growing perennial, increasing by creeping roots or stolens and extending its slender, hairy, branching and leafy stalk, from three to ten inches in length. It usually sprawls along the ground, often rooting again and again at the leaf joints. The downy, oblong, saw-edged, evergreen leaf is broad and rounding at the apex, and is narrowed at the base into a short stem. They are set upon the stalk in oppo-

site pairs. The delicate little pale blue flower has four lobes, each of which is striped with a darker shade. The lower lobe is noticeably smaller and narrower than the outer three. The calyx is four-parted, and there are two opposite flaring stamens and a pistil. They are crowded on slender upright stems, which spring from the axils of the leaves, forming narrow spike-like arrangements. The flowers are remarkably fragile and drop away upon the slightest provocation, and especially so when an attempt is made to pick them.

THYME-LEAVED SPEEDWELL

Verónica serpyllifòlia. Figwort Family.

This small and nearly smooth perennial species has weak, slender stems which are much branched at their creeping base. It grows from two to ten inches in height and often lies close to the ground. The little oval or oblong leaves are indistinctly toothed, and occur in opposite pairs on short stems. The tiny flowers resemble those of the American Brooklime, and are pale blue with darker stripes, or sometimes white in colour. The tips of the green calyx show between the divisions of the corolla, and the two spreading stamens are tipped with light blue. They are set on short stems springing from the axils of small leaflets, and are arranged in short terminal spikes. Though delicate in texture, they are much less fragile than those of most of the Speedwells. It is found commonly in grassy fields and thickets, and along highways from April to August, and ranges from Labrador to Alaska,

south to Georgia, New Mexico and California. Also in Europe, Asia and South America.

BLUETS. INNOCENCE. QUAKER LADIES. QUAKER BONNETS. VENUS'S PRIDE

Houstònia caerùlea. Madder Family.

When one has viewed the myriads of Quaker Ladies that blossom so vigorously from April to July, it is not difficult to realize that the spirit that moved them never prompted their dignified namesakes with such strenuous activity. Otherwise their azure bonnets would never have graced our grassy meadows with so much profusion as we are annually privileged to enjoy. The slender, spreading rootstock forms a dense tuft of small leaves, from which a frail, sparingly branched green stem rises from three to seven inches in height. The tiny, toothless leaves are generally oblong in shape. The basal ones are broader toward the end and are narrowed into short stems. A few smaller ones clasp the stem in opposite pairs. The delicate flowers are very small, and are set in a tiny green calyx on the tip of the stem, where they nod in the bud. The corolla is funnel-shaped, with four widely spreading and pointed lobes. They are white, faintly tinged with light blue or violet, with a circle of yellow in the centre. The Bluets often grow in great colonies in moist, sunny fields, along roadsides and fences or on wet rocks, from Georgia and Alabama to Michigan, Ontario and Nova Scotia. Linnaeus dedicated this genera to Dr. William Houston, an English botanist who collected

GREAT, or BLUE LOBELIA. *Lobelia siphilitica*

NEW YORK ASTER. Aster novi-belgii

in tropical America, and who died in 1733. There are about twenty-five species of this genus in North America.

VENUS'S LOOKING-GLASS. CLASPING BELLFLOWER

Specularia perfoliata. Bellflower Family.

For a possessor of such a fanciful semi-classic name as Venus's Looking-glass one would naturally expect to find a more elaborate and dazzling representative than this rather lowly and demure flower. The somewhat weak, slender, annual, wandlike stalk is very leafy, and often leans or reclines against surrounding growths for its support. It is angled and slightly hairy, and branches from near the base. The small leaves are almost an exact heart shape, with scalloped margins, and they clasp the stalk alternatingly. They are prettily folded, and set out from the stalk like tiny basins on a miniature fountain. The corolla of the blue, violet or purplish wheel-like flower has five spreading divisions. There are five stamens and a three-tipped pistil. The long, green calyx has five, stiff, pointed parts. The flowers, which are usually solitary, or sometimes in twos or threes, at the top of the stalk, are set in the axils of the enfolding leaf, and only a few open at a time. The small, lower buds, which are first to appear, ripen their seeds without opening at all. Such buds are called cleis-to-gamic. This Bellflower is found commonly from May to September, in dry, open woodland borders, and grassy

hillsides, from ocean to ocean, and from Canada to Utah, Mexico and the Gulf States.

HAIRBELL. HAREBELL. LADY'S THIMBLE. BLUE BELLS OF SCOTLAND

Campánula rotundifòlia. Bellflower Family.

There is always an airy, cheery loveliness about this bonny blue Highland lassie, that wins our constant affection and admiration. Blue Bells of Scotland! How it tingles the blood to come upon them and to recall that they were the same dear flower. The name fairly rings in our ears as we ponder over their dainty drooping blossoms, which seem to nod in cadence with the murmur or babble of the mountain brook whose moist, rocky banks they love to decorate from June to September. This rather frail, delicate perennial, grows usually from six to twenty inches, or sometimes fully three feet high, from a slender rootstock. The smooth, single, or branching stem is very slender, and frequently several of them spring from the same root. The small, basal leaves are usually round heart-shaped, and mostly toothed, with long, slender stems. They often wither before the flowers are ready to open. The numerous, long upper leaves, which are seated on the stem, are very narrow, smooth and pointed. Several pretty, five-lobed, bell-shaped, hair-stemmed flowers hang downward from a terminal arrangement and dangle coyishly on the swaying, wind-tossed stalk. Their colour varies from purplish to violet blue. Five slender stamens alternate with the spreading lobes of

the corolla, beyond which extends the greenish white pistil. The green calyx has five narrow parts. The Hairbells are found in dry or moist, rocky cliffs or in meadows and uplands generally from Labrador to Alaska, south to New Jersey, Pennsylvania, Illinois and Nebraska, and westward in the mountains to Arizona and California. Also in Europe and Asia.

GREAT, OR BLUE LOBELIA.

Lobèlia siphilítica. Lobelia Family.

The bright blue flowers of this handsome Lobelia are found commonly in low, moist or wet soil, generally along streams from July to October. The usually single stalk is rather stout, very leafy, sparingly hairy, and grows from one to three feet high from short, perennial offshoots. The thin, light green leaves are slightly hairy, oval to lance-shaped and irregularly toothed. The upper ones clasp the stalk alternately. The attractive flowers are arranged in a long, dense, terminal, leafy, wand-like spike, and the stiff, hairy, green calyx has five long, slender parts. They are formed similar to those of the Red Lobelia, but the lobes are much shorter, and the stamen tube does not stand out beyond the corolla. They are found from Maine and Ontario to Minnesota and Dakota, and south to Georgia, Louisiana and Kansas.

PALE SPIKED LOBELIA

Lobèlia spicàta. Lobelia Family.

The very slender, erect, wand-like spikes of this pale-flowered Lobelia are found here and there in

grassy meadows when the soil is dry and sandy, from June to August. The perennial or biennial, brittle leafy stalk is minutely hairy below and is noticeably twisted. It is stained with red inside the leaf joints, and grows from one to four feet high. The rather thick, pale green leaves are often irregularly notched. The short-stemmed basal ones are tufted, and are broad-oval shaped, with very blunt, rounding tips. The upper ones clasp the stalk alternatingly, and are oblong or lance-shaped, and smaller and more acutely pointed. The small, two-lipped, pale blue flowers are scattered along the spike for some distance. The lower lip is three-parted with two white swellings at the throat, and the smaller upper lip is divided by the cleft that separates the tube its entire length. The parts are all sharply pointed and flaring. The green calyx is five-parted. This species is found from North Carolina, Louisiana, and Arkansas to Canada.

BROOK LOBELIA

Lobèlia Kálmii. Lobelia Family.

This is a small, slender species, growing only from six to twenty inches high, in wet meadows and on wet banks, where it increases from perennial offshoots and blossoms from July to September. The smooth, light green stalk is erect, leafy and branching. The leaf is very narrow, blunt-pointed, and nearly toothless. The upper ones clasp the stalk. The small, light blue flowers are arranged in sparse, loose, terminal spikes. The three lobes of the lower lip are spotted with white

at the throat. The upper lip has two upright parts, and the stamens peek from between them. This Lobelia is found in grassy colonies from Nova Scotia to New Jersey, and westward to Ohio, Michigan and Manitoba.

INDIAN TOBACCO. WILD TOBACCO. GAG-ROOT. ASTHMA WEED. BLADDER-POD LOBELIA

Lobèlia inflàta. Lobelia Family.

This very common annual grows from one to three feet high along roadsides and in neglected fields, and blossoms from July to November. All parts of this Lobelia are medicinal, and Shakers and herb dealers prepare and sell it in oblong, compressed cakes. The plant, however, is considered to be somewhat poisonous, and if the leaves or capsules are chewed for a short time, they produce a sensation of giddiness, then headache, and finally nausea and vomiting. If swallowed it produces more serious results, and has been known to have caused death. The Indians are said to have used the foliage as tobacco. In more modern practice it has been employed as a remedy in various affections of the throat, including acute attacks of catarrh, croup and asthma. The upright stalk is leafy, often slightly hairy, rather stout and branching. The thin alternating leaves are oval or oblong in shape, with short-pointed ends and toothed margins. The upper ones clasp the stalk and become smaller and narrower as they approach the top. The flowers are quite small, light blue in colour, and are set on tiny stems. generally in the axil of a leaflet. They are formed

much the same as those of the Spiked Lobelia, and are scattered along the stalk, forming loose, terminal spikes. This species is easily distinguished by the prominent inflated seed cases which succeed the flowers. The Indian Tobacco is found in dry, open soils from Georgia, Nebraska and Arkansas, and far into Canada.

IRONWEED. FLAT TOP

Vernònia noveboracénsis. Thistle Family.

The deep purple, Thistle-like flowers of the Ironweed enliven our roadsides and low meadows with their intense colouring from July to September. The tall, branching stalk is smooth or rough, and grows from three to nine feet in height. The narrowly oblong or lance-shaped and pointed leaves are alternating and finely toothed. From twenty to thirty bell-shaped flowers are borne on short, branched stems, and form broad, flat-topped clusters. The small bracts of the leafy, brownish purple cup are tipped with spreading bristles. The feathery flowers are often mistaken for those of an Aster, but as they are composed entirely of tubular ray florets and lack the central yellow disc florets of the latter, they are easily distinguished. The Ironweed ranges from New England to Georgia and Mississippi, and west to Missouri and Minnesota.

LARGE BUTTON SNAKEROOT. GAY FEATHER. BLUE BLAZING STAR.

Liàtris squarròsa. Thistle Family.

The showy, bluish purple flowering spikes of this tall, beautiful perennial, blossom with the Golden-rods

and Asters, during August and September. The hairy stem grows from one to six feet high, and usually in dry soil. The alternating deep green leaves vary in size and shape as they ascend the stalk. They are generally narrowly lance-shaped, and their surface is densely covered with tiny dots. The flower heads are semi-circular, and from fifteen to forty-five are borne on short stems in a long, terminal, wand-like spike. They are composed entirely of coloured tubular florets. The large leafy cup has five or six rows of long, bristly, purple-tipped scales. The tuberous root has been used as a remedy for sore throats, and also as a cure for rattlesnake bite. It ranges from the Gulf of Mexico to Maine, Ontario and Nebraska.

THE ASTERS

The Asters or Starworts come tripping along toward the last of August, with the Golden-rods, and continue throughout September and most of October in such profusion that they appear to completely smother everything with their beautiful starry flowers. Without the Asters, the glorious American autumn would lose much of its lovely charm, for every roadside, fence-row, field, meadow and hillside is brilliantly spangled with their scintillating and billowy radiance, and I have often surmised that perhaps Dame Nature rehearsed them annually for a grand snow-scene tableau. Subject to great variation, big and little, short and tall, dense and sparse, ragged and tidy, they become highly confusing, and it takes considerable

patience and experience to distinguish a majority of the two hundred and fifty species existing in North America. The word *Aster* is derived from the Greek, meaning star, and it alludes to their pretty radiating flower heads. Asters are perennial, mostly branching, and late-flowering herbs with alternating leaves. They are rarely annual, and grow from six inches to eight feet in height, and possess Daisy-like flowers varying in size from one-eighth of an inch to two inches broad. The floral heads are seldom solitary, and are usually arranged in terminal groups or clusters of both tubular and radiate flowers. The white, pink, purple, blue or violet ray flowers are pistillate. The tubular disc flowers are perfect, with five-lobed corollas, usually yellow and changing to red, brown or purple. The fading flower usually develops tiny whiskered seeds, that sail hither and thither with the wind, much after the fashion of those of the Dandelion. The coloured rayed species greatly outnumber the white-rayed, but the latter are so very prolific and abundant that they do not appear in the minority. Some species have very long recurving ray flowers, and the latter are found in every degree of length down to one species, *A. augustus*, which has the corolla of its ray flowers reduced to a mere tube.

LARGE-LEAVED ASTER

Áster macrophýllus. Thistle Family.

This rather coarse and extremely variable species has a stout, simple, purple-stained, angular stalk,

which grows two or three feet high from a long root-stock. The basal leaves are very large. They are broadly heart-shaped, taper to a sharp point, and have toothed margins. They have long, slender, grooved and often sticky stems. These very noticeable leaves are set three or four together near the ground, and commonly form large mats or patches — a means by which they may be usually identified. The upper leaves become suddenly smaller and oblong in shape, with short, broadly winged stems, the topmost ones finally occurring almost stemless. The attractive flower heads are loosely arranged in broad, terminal clusters, and they are nearly an inch across. They have from twelve to sixteen rays of various shades of lilac, lavender or violet, and their yellow disc florets turn reddish brown as they fade. This sweetly scented Aster is common in well-drained soils in open woods and thickets, from Canada to Minnesota, and North Carolina during August and September.

LOW SHOWY ASTER. SEASIDE PURPLE ASTER

Áster spectábilis. Thistle Family.

A very pretty member of the family, found in dry, sandy soil, along the coast, from Massachusetts to Delaware, during August, September and October. The stiff, coarse stem grows only one or two feet high, and branches slightly at the top to accommodate the flowers. The leaves are thick-textured, and mostly toothless. The lower ones, which have stems, are oval and taper acutely toward either end. The upper ones

are narrow and lance-shaped, and are set directly on the stalk. The flower heads are very showy. They are an inch and a half broad, and several or many are set on the tips of branchlets, forming a rather flat-topped arrangement. The disc florets are yellow centred, and are surrounded with from fifteen to thirty bright violet rays. They are set in partly spreading, sticky green cups.

NEW ENGLAND ASTER

Áster nòvae-ángliae. Thistle Family

Here, perhaps, is the most popular and the most captivating of the taller Asters. The very name of this familiar and delightfully handsome plant rings true with the Puritanic comeliness which it gracefully diffuses. Altogether, it is one of those happy and pleasing combinations that fairly thrills one with its pure, wholesome loveliness, and it provokes an irresistible admiration wherever it abounds. Gardeners have cultivated this Aster successfully in England, but, discontented with their restraint and coddling, it has escaped therefrom, and asserting the original element of freedom, become naturalized in adjacent fields and byways. Then, again, it has a cunning knack of closing its so-called "petals" or rays at sunset,

> Like the tots of ancient days
> Cuddling up from sight,
> When curfew through autumn's haze
> Bade them nightie-night.

This showy Starwort raises its rough, stout, leafy and branching stalk from two to eight feet high. The

hairy, lance-shaped leaves are pointed at the tip, and heart-shaped at their base, where they snugly clasp the stalk. They are toothless, and the texture is thin. The numerous flower heads are from one to two inches broad, and are clustered at the ends of the branches. From thirty to forty narrow rays, varying in colour from light violet to rich purple, or rarely white, surround the perfect five-lobed, tubular, yellow, purple-stained disc florets, which are set in a large, sticky green cup. This beautiful Aster is commonly found in rich fields and along swamps from Quebec to the Northwest Territory, and south to South Carolina, Missouri, Kansas and Colorado, during August, September and October.

LATE PURPLE ASTER. PURPLE DAISY

Áster pàtens. Thistle Family

One of our most attractive, early flowering and common blue Asters, frequenting dry, open places from August to October, and ranging from Maine and Minnesota to Florida, Louisiana, and Texas. The slender leafy stalk is rough and widely branching. It grows from one to three feet high, and is often stained with purple. The long, lance-shaped leaves are rather thick and rigid, and they are decidedly heart-shaped at the base where they partly clasp the stalk. Their margins and upper surfaces are rough. The solitary flowers are an inch or more broad, and they crown the tips of the spreading branches. Twenty or thirty showy rays of a deep rich violet surround the yellow,

purple-stained centre of disc flowers which are set in pleasing green cups of overlapping parts. The rays close inward with recurved tips at night, and when they finally fade, they assume the same position, and incidentally give an untidy appearance to the otherwise neat and trim flowering top.

WAVY-LEAF, OR VARIOUS-LEAVED ASTER. SMALL FLEABANE

Astér undulàtus. Thistle Family.

A stiff, slender and very rough stalk is possessed by this species, and it grows from one to three and a half feet high, with a spreading top. The leaves are noticeably thick-textured, rough-surfaced above, and downy on the under side. They are somewhat egg-shaped, with a tapering tip and have wavy or slightly toothed margins. The lower leaves are heart-shaped, and have long, slender, margined stems. Those above taper abruptly into shorter, broadened stems, which are widely flared, with conspicuous wings as they clasp the stalk, and this is an easy route to its identity. The topmost leaves become much smaller stemless, toothless and more lance-shaped, and they often clasp the stalk with a heart-shaped base. The flowers average less than an inch broad, and have from eight to fifteen rays varying in colour from pale blue to violet. The pale yellow disc florets fade to brown. The numerous flower heads generally form a loose terminal cluster, but are often set one-sided on the spreading, swaying branches. They are common

enough in dry copses, from New Brunswick and Ontario to Florida, Alabama and Arkansas, during August, September and October.

COMMON BLUE WOOD ASTER

Áster cordifòlius. Thistle Family.

This is a very handsome, spreading, bushy and small-flowered Aster, growing from one to five feet high, in partly shaded woods, roadsides, thickets and on dry banks from early August until the frost and snow finally obliterate them. The slender, leafy stalk is almost smooth, much-branched and often stained with purple. The thin-textured, sharply toothed leaves have a rough surface, and on the under side, the more prominent veins are lightly covered with fine hairs. They are decidedly heart-shaped, taper to a slender point, and are set on slender stems. As they ascend the stalk, the leaves become shorter-stemmed and are egg-shaped or lance-shaped in outline. From ten to twenty delicately coloured rays surround the dark centre of the flower heads, which are densely clustered like little handfuls of confetti, toward the lips of the numerous branches. This is one of our commonest Asters, and ranges from New Brunswick to Minnesota, Georgia and Missouri.

SMOOTH ASTER

Áster laèvis. Thistle Family.

A variable but most elegant Aster everywhere common in dry soil along roadsides and in open woods,

during August, September and October. The rather stout stem rises from two to four feet in height, and is either branched or simple. The thick-textured, long-oval, light green leaves are sometimes toothed. The upper ones are usually heart-shaped and clasp the stalk, while the lower ones taper into winged stems. The rays of the flower head number from fifteen to thirty, and are of a beautiful shade of blue or violet, rarely white. They are set around a yellow centre of disc florets. The heads are an inch broad, and they are closely set in a lovely terminal cluster. The Smooth Aster ranges from Maine and Ontario to Missouri, Pennsylvania and Louisiana.

NEW YORK ASTER

Áster nòvi-bélgii. Thistle Family.

One of the very commonest of the late-flowering Asters of the Atlantic States, and also an extremely variable species. The slender stalk is usually much branched, generally smooth, and grows from one to three feet high. The long, smooth thin-textured, narrow leaves taper gradually to a slender point, with entire or slightly toothed margins. The upper ones partly clasp the stalk, and are somewhat heart-shaped. The lowest ones have stems. The numerous flower heads are an inch or so broad, and are loosely grouped in a somewhat flat-topped arrangement. From fifteen to twenty-five light blue or violet, or rarely white, rays surround the yellow centre. The New York Aster is found in swamps, chiefly near the coast, from

Newfoundland to Maine and Georgia, during August, September and October. There are a number of varieties of this species several of which have been described, but as they are still more or less confused, they have been disregarded in this description.

RED-STALK. PURPLE-STEM, OR EARLY PURPLE ASTER. SWANWEED. COCASH. MEADOW SCABISH

Áster puníceus. Thistle Family.

A variable, tall, stout, rough-hairy and generally purple-stemmed species, commonly found in low, moist thickets and swampy places from July to November. It rises from three to eight feet, and branches widely at the top. The long, oval or lance-shaped leaves have a tapering point, and clasp the stalk with a broad or narrow, heart-shaped base. The margins are regularly and coarsely toothed, or sparingly so, in the middle. The upper surface is very rough, and the under side of the midrib is hairy. The numerous flower heads are from one-half to one and one-half inches broad. From twenty to forty long, narrow, showy lilac-blue or white rays surround the yellow, tubular disc florets, which are prettily set in a loose, spreading, green cup. They are profusely arranged in terminal clusters on the tips of the branches, and are very attractive. This is one of the very earliest-blooming of the Aster group, and is found almost everywhere from Nova Scotia to Western

Ontario and Minnesota, south to North Carolina, Ohio and Michigan.

ROBIN'S PLANTAIN. POOR ROBIN'S PLANTAIN. ROSE PETTY. ROBERT'S PLANTAIN. BLUE SPRING DAISY

Erígeron pulchéllus. Thistle Family.

The Blue Spring Daisy would seem to be a sort of favourite name for this earliest of the Aster or Daisy-like flowers. It is found in the grass in damp fields and on hillsides or banks along woodland borders, where the direct sunlight is broken into shaded spots. It flourishes in scattered communities, and blooming as it does, from April through June, it is not likely to be confused with any of the later-flowering Asters, which it strongly suggests. One can tell this species from an Aster by its hairy surface, and also by the rosette of basal leaves — noticeable characteristics which the Asters do not possess. It is a perennial, and may be found in the same locality year after year, where it increases by stolens and offsets. The singular, hairy, light green stalk is thick and juicy, and rises from ten to twenty inches high, from a rosette of leaves. It is hollow, grooved and sparingly leafy. The flowers are rather large and pleasing, and several of them are borne in a terminal flat-topped cluster. They are Daisy-like in design, with a bright yellow centre of many small disc florets, surrounded with a finely cut fringe of ray flowers of a light bluish purple. The latter colour varies greatly, and often it is faded white.

PURPLE STEM ASTER. *Aster puniceus*

CHICORY. BLUE SAILORS. Cichorium Intybus

They are set in a green cup. The long, narrow and partly clasping leaf is hairy, and tapers toward the point. The midrib is prominent, and shows a lighter shade than the leaf. The margin is entire, and sparingly notched. They are arranged alternately, and so infrequent as to give the stem a generally naked appearance. The basal leaves are tufted and narrow into short, margined peticles or stems. *Erigeron* is Greek, signifying old man in the spring, alluding to the whitish hairs with which the plant is covered. While the long stalk looks stiff and is erect, the flowers have a certain refinedness that is becoming and graceful. The species is found from Nova Scotia to Ontario and Minnesota, south to Florida and Louisiana.

THE THISTLES

Many a happy-go-lucky barefoot lad has knit his brows and bulged his cheek with his tongue, or whistled while he danced on one foot and held the other, after treading on a prickly tuft of Thistle leaves along the way to or from his favourite swimming hole. That is the way he learned to know the Thistle and to respect it. Can this be the true story of how the Scotch learned to dance the Highland fling? One night, a long time ago, a barefoot Dane experienced the same sensation and startled a Scotch sentinel, who saved his sleeping comrades from annihilation. This incident caused the patriotic Scots to adopt the Thistle as their national emblem. In Scotland it is truly "a thing of beauty and a joy forever," but the American farmer

never saw it that way. Because it threatened his hay fields, laws have been enacted in some states for its speedy extermination. Notwithstanding their condemnable qualities, they are really one of the handsomest ornamental plants that have come to our shores. They are especially attractive and conspicuous in our meadows and pastures, because cattle and horses studiously avoid them and graze all around them, and bees and butterflies are always hovering delightfully about them. Some of the species have been used as a remedy for swelled veins. They were held at one time to be a sure cure for the "blues," and to dream of Thistles was considered an omen of good luck. Silly lassies of olden days, who desired to anticipate their lover's sincerity, did so by placing trimmed Thistles under their pillows at night, and noting certain changes in them the following morning.

COMMON, BUR OR SPEAR THISTLE

Cirsium lanceolàtum. Thistle Family.

A large, biennial species, with its round, branching stalk growing from three to five feet high. It is very leafy, and is covered with a fine whitish wool. The long, dark green, lance-shaped leaves have a long, tapering point, and their margins are deeply, irregularly and fantastically cut, each projection being tipped with a long, stiff, and exceedingly sharp, needle-like point that terminates its midrib, and which easily pierces the skin upon the slightest provocation. The upper surface is rough and prickly, and the under side

is felted with whitish, cobwebby hairs. The leaves clasp the stalk alternately and hug it closely for a distance, then spring away with an upward flare. The lobes are curling, and the texture is tough. The beautiful flowering heads are usually solitary, and are borne on the ends of the branches. Numerous small, sweetly scented, tubular, purple florets are gathered into a large, soft, spreading and rounding head above the green, egg-shaped cup. The latter is covered with many long, sharp, white, spreading prickles. The flowers are succeeded by a fluffy, silky plume. This Thistle is found in fields and along roadsides from July to November, from Newfoundland to Georgia, west to Minnesota, Nebraska and Missouri. Also in Europe and Asia.

PASTURE THISTLE. FRAGRANT THISTLE

Cirsium pùmilum. Thistle Family.

This is the largest-flowered Thistle we have. Compared with the Common Thistle, it grows less tall, is more fragrant, is not so leafy, the more numerous spires are shorter, and its range is more restricted. The leaves are narrowed and do not adhere so closely to the stouter and less branching stalk. The latter is more or less hairy, and grows from one to three feet high from thick, branched, solid roots. The stem leaves are green on both sides. They are long, lance-shaped in outline, and clasp the stalk alternatingly. They are cut into short, triangular, very prickery, margined lobes, that are more or less fluted. The

midrib is strong, and the texture is firm. The great, fluffy flower head is more rounding and spreading than the Common Thistle. The purple colouring is softer and lighter in tone, and the large green cup is thickly covered with short prickers. Several small leaflets are set close to the base of the cup. One, two, or three flowers are set on the end of the stalk and branches, and as the seed ripens, the head becomes a lovely ball of silky fluff. This Thistle is found in dry pastures and fields, from Maine to Pennsylvania, and Delaware, from July to September.

CANADA THISTLE. CREEPING, CURSED, WAY, CORN, OR HARD THISTLE

Cirsium árvense. Thistle Family.

The Canada Thistle has been severely condemned by farmers in this country because of its rapid spread and the extreme difficulty with which its creeping roots are eradicated from the soil. It grows in extensive colonies, and quickly monopolizes our fertile meadows and pasture lands. The slender, leafy stalk is grooved and branching at the top, and grows from one to three feet high, from a perennial creeping rootstalk. The long, lance-shaped leaf is deeply cut into very prickly lobed or coarsely toothed segments, which bristle with many prickers, as they become curled or ruffled. The colour is grayish green, and the midrib is whitish. They slightly clasp the stalk, and the lower ones are stemmed. The numerous small, purple or whitish flower heads are loosely clustered on the tips of the

branches. Many tubular florets with prominent purple stamens and white pistils compose the head. The latter is set in an egg-shaped, grayish green cup, which is covered with short, weak prickers. The flowers are fragrant and pleasing, but after they mature they become anything but sightly. This species is very common in cultivated fields and pastures and along roadsides from Newfoundland to Virginia, Minnesota and Nebraska, from July to September.

CHICORY. SUCCORY. BLUE SAILORS

Cichòrium Íntybus. Chicory Family.

In grassy fields that slope to the sea, you may be sure to find the beautiful, pale blue flowered Chicory at its best. It fairly continues the colour scheme of sky and water, and on bright, sunshiny mornings, when everything is still sparkling with dew, it lends a rare and irresistible fascination to the scene. And like most lovely flowers, it seems to inspire the beholder with a keen sense of gratitude and reverence for the glorious privilege of living with it, which, in this work-a-day world, is altogether too often obscured by those who allow themselves to become unnecessarily house bound. Chicory, however, is probably better known as a substitute or an adulterant for coffee, to which it is added to give colour and body. The leaves, when young and tender, make an excellent salad, which is much in favour in France. They are also used as a pot herb. The smaller roots are occasionally boiled, and served like carrots and pars-

nips. Chicory was extensively used as a food by the ancient Egyptians, and it was known to Virgil and Horace nearly two thousand years ago. It is an erect, branching, perennial herb, with a long, deep, fleshy tap-root, and grows from one to three feet high. The large, rigid, angular stalk is grooved, hairy, and rather scrawly. The basal leaves slightly resemble those of the Dandelion or Thistle, to which the plant is related. They are sharply cut, and are narrowed into long stems and spread along the ground. The upper ones are very much smaller, lance-shaped or oblong, lobed and entire, and clasp the stalk. The very exquisite, showy, wheel-like blossoms are of a delicate, bright grayish blue, rarely white, or sometimes tinged with purple, and are scattered along the nearly naked stalk, at short intervals, in twos or threes, for a considerable portion of its length. They are set closely and vertically against the stalk, amid several short, spreading leaflets, or occasionally they terminate short, stout, branch-like stems. The florets are strap-shaped rays with noticeable square, ragged, five-toothed ends, and are arranged in several spreading circles which radiate from a flat, leafy green cup. The arrow-shaped anthers are loosely clustered toward the centre of the head. The flowers have a very faint odour, and the green buds are tinted with purple. They open only in the sunshine, and close at the noon hour. They blossom from July to October, in fields and along roadsides, from Nova Scotia to Minnesota, North Carolina, Nebraska and Missouri.

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I

GLOSSARY OF BOTANICAL TERMS

Acute. — Sharp-pointed.

Alternate. — Not opposite or paired, but arranged singly at different heights on either side of the stems.

Annual. — Of one year's duration.

Anther. — That part of the stamen which contains the pollen.

Apetalous. — Without petals, like the Anemone. Secondary flowers.

Apex. — The outer tip of a leaf or petal.

Axil. — The angle formed by a leaf or branch with the stem.

Basal. — Rosettes or tufts of leaves clustered near the ground.

Bearded. — Bearing tufts of hairs.

Biennial. — Of two years' duration. Usually flowering and fruiting the second year only, and then perishing.

Bract. — A small, modified leaf at the base of, or upon the flower stem.

Bractlet. — A secondary bract, usually upon the stem of a flower.

Bulb. — An underground leaf-bud with fleshy scales.

Bulbous. — Having the character of a bulb.

Calyx. — The outer lower set of leaves at the base of the flower. Usually green, and sometimes brightly coloured. In some instances acting in the place of petals.

Carpel. — A simple pistil or a single part of a compound pistil.

Chlorophyll. — The green colouring matter of plants.

Cleistogamous. — Small, inconspicuous flowers which never open but fertilize themselves in the bud, and usually grow near the ground.

Composite. — A floral head composed of few or many florets gathered in a dense head like the Daisy, Clover, and Dandelion.

Compound. — Composed of two or more similar parts united into a whole. *Compound leaf*, is one divided into separate leaflets.

Corm. — A solid, fleshy, bulb-like enlargement at the base of the stem.

Corolla. — The flower leaves standing next within and above the calyx.

Cross-fertilization. — Is produced by the pollen, which has been transferred from the anther of one flower to the stigma of another, by bees, moths, butterflies, insects, and the wind.

Deciduous. — Not evergreen. Falling away.

Deflexed. — Bent or turned sharply or abruptly downward.

Disc Flowers. — The tubular florets composing the central "button" of an Aster or similar composite flower, and usually surrounded with a circle of ray flowers.

Entire. — Without toothing or division.

Evergreen. — Bearing green leaves throughout the year.

Fertile. — Fruit-producing flowers, as one having a pistil, or anthers with pollen. Bearing seeds.

Fibrous. — Threadlike.

Filament. — The threadlike part of a stamen, which supports the anther.

Fertilization. — A process whereby the tiny pollen grains, which come in contact with the stigma penetrates the style and enters the ovary, where it quickens the seed formation into life.

Floret. — A small flower, usually one of the ray or disc flowers of the Composite family.

Head. — A dense cluster of stemless or nearly stemless flowers like a Daisy or Clover.

Hybrid. — A cross-breed of two species.

Imperfect. — Flowers with either stamens or pistils, not with both.

Introduced. — Brought intentionally from another region.

Irregular. — Showing inequality in the size, form or union of its similar parts.

Keeled. — Ridged like the keel of a boat. Applied to the two united lower petals of the peculiar corolla of the blossoms of the Pea family.

Lance-shaped. — Much longer than wide, broadest above the base, and narrowest to the apex.

Leaflet. — A separate or single division of a compound leaf, or a tiny leaf or bract.

Lip. — The prominent upper petal of orchids (which by a peculiar twist appears as the lower) or the divisions of the two-parted flowers of the Mints.

Lobe. — The rounded segments of any part of flower or leaf.

Margin. — The edge or outline of a leaf or petal.

Midrib. — The central or main rib of a leaf.

Naturalized. — Plants not native to the region but so firmly established as to have become part of the flora.

Nectar. — A sweetish fluid contained in some parts of a flower.

Oblique. — Slanting.

Oblong. — Longer than broad, with nearly parallel or somewhat curving sides.

Ovary. — Lower part of a pistil, which bears seeds.

Ovate. — Egg-shaped, with the broadest end toward the stem.

Papilionaceous. — Having a winged corolla somewhat resembling a butterfly, and peculiar to the flowers of the Pea family.

Palate. — A round projection of the lower lip of a two-lipped flower, closing the throat.

Parasitic. — Growing upon and deriving nourishment from another plant.

Perennial. — Lasting year after year.

Perfect flower. — One having both pistil and stamens.

Petal. — A division of the corolla.

Petiole. — The stalk of a leaf.

Pistil. — The central and seed-bearing organ of a flower, consisting of the ovary, stigma and style when present.

Pistillate. — Having pistils, but no stamens. Female flowers.

Pollen. — The yellow fertilizing powder contained in the anther.

Polygamous. — Bearing both perfect and imperfect flowers.

Radiate. — Spreading from or arranged around a common centre. Bearing ray flowers.

Ray. — The outer florets of a Daisy-like flower.

Recurved. — Curved downward or backward.

Reflexed. — Sharply bent or curved downward.

Rib. — The prominent vein of a leaf.

Root. — The underground part of a plant supplying nourishment.

Rootstock. — A creeping, horizontal, underground stem rooting at the joints, and becoming erect at the apex.

Runner. — A very slender stolen.

Scape. — A leafless, or nearly leafless flower stalk rising from the ground.

Saprophyte. — A plant which grows on dead organic matter.

Secund. — Borne along one side of a stem.

Segment. — One of the parts of a leaf or other like organ that is cleft or divided.

Sepal. — A division of the Calyx.

Sheath. — A tubular covering, as the lower part of the leaves in grasses.

Spadix. — A fleshy spike enveloped by a spathe as in the Cala Lily and Jack-in-the-Pulpit.

Spathe. — A large, leaflike bract or pair of bracts enclosing a flower or spadix.

Spike. — An elongated, closely set flower-cluster.

Spur. — A hollow, sac-like or tubular extension of some part of a blossom, usually nectar-bearing.

Stalk. — Herein used to designate the main ascending part of a plant.

Stamen. — One of the pollen-bearing organs of a flower.

Staminate. — Flowers which bear stamens but no pistils. Male flowers.

Stem. — Herein used to designate the connecting parts between the stalk and the leaves and flowers.

Sterile. — Unproductive, as a flower without a pistil, or stamen without an anther.

Stigma. — The tip or side of a pistil through which the pollen is received, by means of tiny tubes which penetrate the style and convey the minute grains to fertilize the seeds within the ovary.

Stipule. — A tiny leaflet borne at the base of a petiole.

Stolen. — A basal runner or rooting branch.

Style. — The usually slender part of a pistil connecting the stigma and the ovary.

Terminal. — Borne at the summit of the stem.

Tuber. — A short and thick underground branch having many eyes like a potato.

Tufted. — Growing in clusters or clumps.

Umbel. — A terminal, floral arrangement in which the stems of a cluster spring from the same point like the ribs of an umbrella.

Veins. — The finer, threadlike branching parts in the fibre or tissue in a leaf or other organ.

Venation. — The arrangement of the veins.

Whorl. — An arrangement of leaves in a circle around the stem.

Winged. — Having a thin expansion or extension on either side of the stem.

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